

Resume

Dr. Mohammed Ashraf Gondal

Distinguished Professor
Coordinator Laser Research Group

Field of Specialization

Applied Physics

**(Laser and Their Applications
Nanotechnology, Biophysics, Solar/renewable Energy,
Environment Protection & Monitoring, Sensors, CO₂
Reduction, Hydrogen Production, Chemical Science,
Waste Water Treatment, Photocatalysis and
Spectroscopy)**

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Homepage: <http://faculty.kfupm.edu.sa/Phys/magondal>

Citations :Over 6450 as per Google Scholar Record, H-index 43

Career Objectives

Community Services, Teaching and Research in the field of lasers, clean water and renewable energy, nanotechnology environment protection, wetting and non wetting surfaces for oil water separation, self cleaning & dust repellent, desulfurization of crude oil, plasma sources, sensors, solar cells, clean environment, development of laser based techniques for pollution monitoring, mineral exploration, analysis of geological rocks and material characterization like Photoacoustic, LIBS, LIDAR (for atmospheric remote sensing), Optogalvanic, Laser enhanced ionization (LEI) atomic and molecular spectroscopy and laser/solar induced photo-catalysis and its applications in fuel cells, water purification, CO₂, CH₄, Carbon management/utilization for value added hydrocarbons and petrochemicals using nano materials, which are in line with National Strategic & Technology Plan (NSTIP) of KSA as well the Global and Kingdom needs. Collaborating with various universities (MIT, NUS, Nanjing University, King Saud Riyad, King AbdulAziz Jeddah and Dammam University) and departments on multidisciplinary problems on sustainable development by working in above mentioned disciplines.

Education Profile:

- **Ph.D.** Laser Physics/Spectroscopy, Institute of Applied Physics, Rheinischen Friedrich Wilhelms, University, Bonn, Germany, 1983.
Thesis: High Resolution Laser Magnetic Resonance(LMR) Spectroscopy of CF Radical Using CO Laser" Ph.D. Thesis, Institute of Applied Physics, Rheinischen Friedrich Wilhelms University Bonn, Germany.
- **M. Phil.** Laser Physics, Quaid-e-Azam University, Islamabad, Pakistan, 1977.
Thesis: Spectroscopy of Laser produced plasmas using Q-switched Nd:YAG Laser" M.Phil Thesis, Quid-e Azam University, Islamabad.
- **M.Sc.** Physics, Punjab University, Lahore, Pakistan, 1973.
- **B.Sc.** Physics, Math, Punjab University, Lahore, Pakistan, 1971.

Professional Profile: (Teaching and Research Experience)

May 2010 – to date **Distinguished Professor**, Laser Research Group, Physics Department and Center of Excellence in Nano Technology(CENT) King Fahd University of Petroleum & Minerals (KFUPM), Dhahran 31261, Saudi Arabia.

June 2012- august 2017, **Visiting professor** (Research affiliate) MIT, Cambridge, USA.

October 2009- to date, **Head** (Coordinator) **Laser Research Group**

June 2015- till date, Colaborator and affiliate NUS Singapore

March 2002 –May 2010 **Distinguished Professor**, Physics Department King Fahd University of Petroleum & Minerals (KFUPM) Dhahran 31261, Saudi Arabia

July 15 - August 25, 2003 **Visiting Professor**, Applied Physics Institute, Free University, Berlin, Germany

July 21 - August 20, 1995 **Visiting Professor**, Heidelberg University Germany

August 1991 - **Research Scientist I**
March 2002 Center for Applied Physical Science, Research Institute King Fahd University of Petroleum and Minerals (KFUPM) Dhahran, 31261 Saudi Arabia.

August 1984 - **Senior Research Scientist**, Post Graduate Center for Electro-
November 1991 Optics Tripoli.

July 1980 - **Research Fellow**
August 1984 Institute of Applied Physics, Rheinischen Friedrich Wilhelms University Bonn, Germany.

January 1977 - **Research Scientist**
1980 Laser Group, PINSTECH, Nilore Islamabad, Pakistan.

Communication Skills: writing, reading and speaking: English, German, Urdu, Punjabi, Arabic

Professional Affiliations:

- Member American Physical Society (APS) 2011---till date
- American Chemical Society (Saudi chapter).
- Member, Saudi Arabia Water Environ. Association (since 2010)
- Member, German Physical Society, 1981 - 1988.
- Member, International Committee on space Research (COSPAR), 2003 – till date
- Life Member, Pakistan Institute of Physics.
- Member, Australian Optical Society, 1996- to date
- Member, Institute of Physics, Australia, 1997- to date
- Member, Association of Professional Engineers and Scientists, Australia (APESMA), 1997- to 2001
- Member, Saudi Physical Society.

Editorial Activities, Conference Organization and Key Note Speaker:

1. **Associate Editor**, Journal of Sensors and Instrumentation
<http://uscip.org/JournalsDetail.aspx?journalID=42>
2. **Member Editorial Board**, Arabian Journal of Science and Engineering (AJSE). Springer, (ISSN 1319-8025), <http://www.editorialmanager.com/ajse-sci/>.
3. **Member Editorial Board**, Journal of Nanochemistry and Nanotechnology
https://scienceforecastoa.com/Journal_Related/Journal_Pages/JournalEditorialBoard.aspx?JId=J1030_SJNN
4. **Member Editorial Board**, International Journal of Photo-energy
<http://www.hindawi.com/journals/ijp/editors>
5. **Editorial Board Member**, International Journal of Spectroscopy, ISN # 1687-9449; e-SN # 1687-9457. <http://www.hindawi.com/journals/ijs>
6. **Editorial Board Member**, Journal of Engineering , ISSN: 2314-4912 (Print) ISSN: 2314-490(Online); <http://www.hindawi.com/journals/je/workflow/>
7. **Member Editorial Board**, Research Journal of Environmental and Earth Sciences,
<http://www.maxwellsci.com/jp/editor.php?jid=RJEES>
8. **Member Editorial Board**, Research Journal of Applied Sciences, Engineering and Technology,
<http://www.maxwellsci.com/jp/editor.php?jid=RJEES>
9. **Member Editorial Board**, INTERNATIONAL JOURNAL OF NANO SCIENTIFIC NETWORKS AND NANOTECHNOLOGY,
https://helicsgroup.net/journal/member_details/NanoScientificNetworksandNanotechnology/8/22
10. **Member Technical Committee, EMN Meeting on Metallic Glasses: Energy Materials, Nanotechnology, Kuala Lumpur Malaysia**, 12-16th Septemehr 2016). <http://emnmeeting.org/Metallic-Glasses/committees/>
11. **Member Technical Committee, Second International Conference on Electro-optics and image processing (ICOIP 2015)** Chicago, Illinois, USA, 2-4 th july 2015). <http://www.icoip.org/news.html>
12. **Member Scientific Committee , International Workshop on “Optics and Photonics”, Riyadh SaudiArabia (21February, 2016).**
13. **Member Scientific Committee,15th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, October 08-10, 2018).
14. **Member Scientific Committee,14th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (October 9-11, 2017, Amman, Jordan.).
15. **Member Scientific Committee,13th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (UNC Charlotte, North Carolina,USA October 13-14, 2016).
16. **Member Scientific Committee,12^h International Conference on High Capacity Optical Networks and Emerging Technology (HONET,15)** IEEE sponsored (Islamabad, 15-17 Dec, 2015).

17. **Member Scientific Committee,11th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,14)** IEEE sponsored (Charlotte, North Carolina,USA, 15-17 Dec, 2014).
18. **Member International Steering and Scientific Committee,10th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,13)** IEEE sponsored (Cyprus,12-14 Dec, 2013).
19. **Member International Steering and Scientific Committee,9th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,12)** IEEE sponsored (Istanbul,12-14 Dec, 2012 Turkey).
20. **Member Scientific Committee , International Conference on Atomic,Molecular and Optical Physics, Aljuf Saudi Arabia (29April -2nd may, 2015).**
21. **Member International Steering and Scientific Committee,8th International Conference on High Capacity Optical Networks and Emerging Technology (HONET,11)** IEEE sponsored (Riyadh,19-21 Oct, 2011 Saudi Arabia).
22. **Member Program and Scientific Committee of 1st International Conference on Laboratory Technology (LABTECH)**, Manama, Bahrain (20 -22 October , 2008).
23. **Member International Program Committee , 2nd International Conference on Instrumentation Control and Automation (ICA)** , November 15-17, 2011 at Bandung, West Java, Republic of Indonesia.
24. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (2-6 November , 2011).
25. **Member International Steering Committee, International Symposium on Vacuum Science and Technology**, Islamabad, Pakistan (1st -5 December, 2012).
26. **Member Program and Scientific Committee**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain.
27. **Member Program and Scientific Committee of 2nd International Conference on Laboratory Technology (LABTECH)**, Doha, Qatar, (October , 2011).
28. **Member Program and Scientific Committee** responsible for Joint exhibition with French for organizing an Exhibition on Lasers and their Applications, titled "Lights on Light" for 10 days, November, 1994.
29. **Invited Speaker**, The 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, June13–17, 2016, Montréal, Québec, Canada.
30. **Invited Speaker**, International Conference on Physics and Chemistries of Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
31. M. A. Gondal (invited talk) Industrial Applications of Nanomaterials: For Oil production, solar energy harvesting, conversion of CO₂ into value added fuels and water purification, International Symposium on Nano education and Applications, COMSTECH, Islamabad (12-15 Decemebr, 2016).
32. M.A.Gondal (invited talk), Synthesis of nanocomposites and their application in energy harvesting, waste water treatment and oil water separation, NOOR 2nd International Symposium on Applied Materials and Nanodevices, National Institute of Laser and Optronics, Islamabad (14-16 November,2016).
33. **Invited Speaker**, 17th Photonics North, Ottawa (9-11th June , 2015)
34. **Invited Speaker, KAUST-UKFUPM Workshop on Solid-State Lighting, 2012 (April 13-14)**, Dhahran , Saudi Arabia.
35. **Invited Speaker, 3rd Saudi International Nanotechnology/ Nanophotonics Conference, 2014 (December 1-3)**, KACST-KAUST-UCSB Riyadh, Saudi Arabia.
36. **Invited Speaker, KAUST-UCSB-NSF Workshop on Solid-State Lighting, 2012 (October 13-14)**, (KAUST), Thuwal, Saudi Arabia,
37. **Invited Speaker, “3^{6th} International Nathiagali Summer College (INSC), on Photovoltaic’s”** (4-8th July, 2011) Pakistan.
38. **Invited Speaker**, International Conference on Oxide-based Materials and Devices II, (Conference OE108, OPTO SPIE West), Photonic West, The Moscone Center, San Francisco, California United States 22 - 27 January 2011.
39. **Key Note Speaker**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27,2010).
40. **Key Note Speaker**, International Conference and Exhibition on Laboratory Technology, Kuwait, November 4-5, 2009.
41. **Key Note Speaker**, workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April ,2008) Khartoum, Sudan.

42. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
43. **Invited Speaker**, the 4th International Symposium on Non-Crystalline Solids and The 8th Brazilian Symposium on Glass and Related Materials, Aracaju, SE, Brazil (Oct 19-26, 2007).
44. **Key Note Speaker**, 9th Symposium on analytical and environmental Chemistry, Baragali, Pakistan (July 24-26, 2006).

Honors, Awards, Recognitions:

- Received **Distinguished Professorship Award** from the King Fahd University of Petroleum & Minerals, academic year 2009-2010, 2012-2013, 2015-2016.
- Received **Excellent Oral Presentaion Award** during Interntional Confernce on Optoelectronics and image processing (ICOIP 2015) held at Chicago (July 2-4, 2015) USA, sponsored by American Society for Research (ASR).
- Received **Best Project Award** from NSTIP/KFUPM for academic year 2014 for National Stretgic Technology and Innovation Plan (NSTIP) Project # **NAN93-4**; Applications Of Nanoscale Materials (Metal Oxides) for waste water treatment and corrosion inhibition using Laser Induced Photo-Catalytic Process among 200 projects.
- Received Highly prestigious **AL-Marai Prize** for Innovative Research in the area of waste water treatment using nanocatalysts in the Field of Environment for year 2010/2011.
- Received **Distinguished Researcher Award** from the King Fahd University of Petroleum & Minerals, academic year 2005-2006, 2010-2011, 2015-2016.
- **Best Paper Award** entitled "Detection of Ozone using Fourth Harmonic of Nd:YAG Laser, 1st International Conference & Exhibition on Laboratory Technology, Manama Bahrain (Oct 20-22, 2008).
- Received **Best Project Award** from King Fahd University of Petroleum & Minerals, academic year 2008-2009. Sabic project # SABIC - 07004 entitled "Laser induced photo-catalytic removal of phenol for waste water treatment"
- One of the Recipient of **Best Paper Award entitled**, Plastic Deformation of Steel Surface due to Laser Shock Processing, by B.S. Yilbas, A.F.M. Arif and M.A. Gondal (2006) published in Journal of Engineering Manufacture, Volume 220, Number 6, 2006, pp. 857-867(11) by British Mechanical Engineers for 2007.
- Received **HRH Prince Mohammed Bin Fahd Best Team Award** for Excellence in Research, 1995.
- **Seven published papers listed in Top 25 hot Papers or Top Cited** as awarded by Science Direct.
- **Silver Medal and Merit Certificate** for Second Position in M.Sc. Physics Examination, University of Punjab, Lahore (1973 Session).
- **DAAD** (German Academic Exchange Service) **Visiting Professor Fellowship**, Free Univesity, Berlin, Germany (July 15 - August 25, 2003)
- **DAAD** (German Academic Exchange Service) **Visiting Professor Fellowship**, Heidelberg Universty Germany (July 21 - August 20, 1995).
- **DAAD** (German Academic Exchange Service) **Fellowship Research Scholar Ph.D.** (1979-1983).
- **Associate Membership, International Center for Theoretical Physics (ICTP)** Trieste, Italy, 1988-1995.
- **Reviewer for many Journals of high profile:**
- Reviewer for Nature Scientific Reports (OSA).
- NPG Clean water (nature series)
- Nature Communications
- Reviewer for Applied Optics (OSA).
- Reviewer for ACS Applied Materails and Surfaces(ACS)
- Reviewer for Applied Catalysis A, B (Elsevier).
- Reviewer for Catalysis communications (Elsevier).
- Reviewer for Optics and laser technology (Elsevier).
- Reviewer for Applied Surface Science (Elsevier).
- Reviewer for chemosphere (Elsevier).
- Reviewer for Laser and Optics in Engineering (Elsevier).
- Reviewer for Optical and Quantum Electronics (Elsevier).
- Reviewer for Energy & Fuels (ACS, USA).

- Reviewer for Electrochemical and Solid-State Letters(ECS)
- Reviewer for Material Chemistry and Physics (Elsevier).
- Reviewer for Nanoparticle Research (Springer).
- Reviewer for Catalysis Communications (Elsevier).
- Reviewer for Nanotechnology (AOP).
- Reviewer for J. Hazardous Materials (Elsevier).
- Reviewer for Talanta (Elsevier)
- Reviewer for Analytical Chemistry (ACS)
- Reviewer for sensors and actuators (Elsevier)
- Reviewer for KACST (King Abdulaziz City for Science and Technology) funded proposals.
- Reviewer for Qatar Foundation funded proposals
- Reviewer for National Centre of Science and Technology Republic of Kazakhstan funded proposals.
- Various US Universities Grants proposals

Inventions and Patents

1. **M. A. Gondal**, Z. H. Yamani, M. A. Ali, A. Al-Arfaj and M. A. Dastageer (2005)
“Method for the conversion of methane into C₂ and higher hydrocarbons using UV laser”
USPTO Pat. NO: US2005045467-A1
2. **M. A. Gondal**, A. Hammed and Z. H. Yamani
“Laser Photocatalytic process for the production of hydrogen”
USPTO Pat. NO: US2005226808.
3. **M. A. Gondal**, J. Pola, Z. H. Yamani, H.M. Masoudi and A. Arfaj (2008) “Laser Based Method for Removal of Sulfur(DMDBT) in Hydrocarbon Fuels”
USPTO Pat. NO # 7,871,501 B2
4. **M.A. Gondal**, Q. Drmsoh, Z. H.Yamani and T.A. Saleh
Method for detection of cyanide in water
USPTO Pat. NO # 8460538
5. **M.A. Gondal**, Q. Drmsoh, Z. H.Yamani and T.A. Saleh
Method for detection of cyanide in water II
USPTO Pat. NO # 9,034,169 B2
6. **M.A. Gondal**, Q. Drmsoh, Z.H.Yamani and T.A. Saleh
Method of forming zinc peroxide nanoparticles
USPTO Pat. NO# 2011/0303050 A1
7. M.N. Siddiqui, K. R. Hooshani, **M.A. Gondal** and Brindaban C. Ranu
Desulfurization of light fuel using a task-specific ionic liquid 1-pentyl-3-methyl Imidazolium Iodate, **USPTO Pat. NO # 2014305844-A1**
8. Alhooshani K. R, Al S A A, Saleh T A, Siddiqui, **M. A. Gondal** M A Manufacture of metal-oxide/nickel oxide/zinc oxide material used for desulfurizing hydrocarbon composition, involves ultrasonically processing/heating/cooling/filtering mixture containing metal oxide and zinc/nickel compound, **USPTO Pat. NO # 2015182946-A1**
9. K. R. Alhooshani, A. A. Al Swat, T. A. Saleh, M. N. Siddiqui, **M. A. Gondal**, Ionic liquid for desulfurizing light fuels and petroleum products, comprises 1-methyl-3-pentyl-1H-imidazolium periodate, **USPTO Pat. NO # US 9,421,516 B2**
10. KR Alhooshani, AA Al Swat, TA Saleh, MN Siddiqui, **M.A. Gondal**
Method for preparing alumina—zinc oxide—nickel oxide composite for desulfurization; **USPTO Pat. NO # 9,421,516**
11. KR Alhooshani, AA Al Swat, TA Saleh, MN Siddiqui, **M.A. Gondal**
Method using alumina-zinc oxide-nickel oxide composite for desulfurization of hydrocarbons ; **USPTO Pat. NO # 9,663,724.**
12. KR Alhooshani, AA Al Swat, TA Saleh, MN Siddiqui, **M. A. Gondal**
Method for desulfurizing diesel fuel; **USPTO Pat. NO 9,926,495.**
13. **M. A. Gondal**, X. Chang, M.A Ali, M. A. Dastageer, S. M. Zubair, J. H. Lienhard V, Wastewater filtration system and method, **USPTO Pat. NO # 9505635**

14. **M. A. Gondal**, X. Chang, M.A. Ali , M. A. Dastageer, S. M. Zubair, J. H. Lienhard V , Method for Degradation of Multiple Dyes and Toxic Metals in Wastewater Using Solar and Visible Radiation in an Indirect Excitation Scheme **USPTO Pat. NO # 61/918863**
15. **M. A. Gondal**, K. Shen, Z.H.Yamani, X. Chang, 450 nm visible light-induced photosensitized degradation of rhodamine B molecules over BioBr in aqueous solution, **USPTO Pat. NO # 9,399,576**
16. A. A. Naqvi, **M.A. Gondal**, Nitrogen detection in bulk samples using a d-d reaction-based portable neutron generator, **USPTO Pat. NO # US 917,021, 8 B2.**
17. **M.A. Gondal** and M.Nasr, Inexpensive and Facile Method for Protection against Laser Guided Bombs and Missiles, submitted to USPTO, May 29th , 2015, **USPTO Pat. NO . # 62-260419 (481162US)**
18. **M.A. Gondal**, R Fajgar, ZHA Yamani, X Chang, Method for the preparation of Ag/C nanocomposite films by laser-induced carbonization of alkane; **USPTO Pat. NO 10125418.**
19. **M.A. Gondal**, MA Dastageer, AB Khalil, RG Siddique, U Baig Method for disinfecting a fluid with a palladium-doped tungsten trioxide photocatalyst; **USPTO NO # S10125031B2**
20. K. K. Varanasi, G.McKinley, **M. A. Gondal** and G. Kwon, Photosensitized-Photoactive Materials and Methods for Making and Using the Same", **USPTO Pat. NO # 62/181,833.**
21. K.K. Varanasi, GH McKinley, G Kwon, **MA Gondal**, Dye sensitized photoactive surfaces; **USPTO Pat. NO # 15/186,524.**
22. Nasser Al-Aqeeli, **M.A. Gondal**, H. Alhajri, A. Al-Zahrani, Crumb Rubber Coating with Hydrophobic Surface, **USPTO Pat. NO # 9,670,375**
23. Nasser Al-Aqeeli, **M.A. Gondal**, H. Alhajri, A. Al-Zahrani, Crumb rubber coating composition and method for protecting a surface, **USPTO Pat. NO #. 9,873,816.**
24. **M.A. Gondal**, M.A. Dastageer, U. Baig, Method of forming methanol via photocatalytic reduction of carbon dioxide, **USPTO Pat. NO #10047027**
25. **M.A. Gondal**, M.A. Dastageer, U. Baig, Catalytic methanol formation with pulsed UV light, **USPTO Pat. NO : 10131601**
26. **M.A. Gondal**, M.A. Dastageer, U. Baig, Catalytic methanol formation from carbon dioxide with a templated indium catalyst, **USPTO Pat. NO : 10131602**
27. J.M. Alghamdi, **MA Gondal**, Dye-Sensitized Solar Cell including a Semiconducting Nanocomposite; **US Patent # US20180182562A1.**
28. T. F. Qahtan, L. D. Banchik, **M.A. Gondal**, G.Kwon, D.Panchanathan, U. Baig, G.McKinley, Development of Advanced Multifunctional Robust Membrane for Efficient Oil-water Separation and Simultaneous Removal of Organic Pollutants, **US Patent # 15794034**
29. T.F. Qahtan, **M. A. Gondal**, M.A. Dastageer A Facile Method to Synthesize Stable Carbon Nanoparticles Dispersions and its Application to Fabricate Thermally and Mechanically Stable Superhydrophobic Surfaces using Inexpensive Candle Soot (as Raw Material) **US patent: US Patent # 2016-032**
30. I. Poppola, J. Al-Ghamdi, **M.A. Gondal**, T.F. Qahtan, FABRICATION OF PLATINUM COUNTER ELECTRODES FOR BIFACIAL DYE-SENSITIZED SOLAR CELLS **US Patent NO # 512894US**
31. **M.A. Gondal**, MA Dastageer, AB Khalil, RG Siddique, U Baig Fixed Bed Method for Disinfecting Fluids, **US Patent # 10160665**
32. **M.A. Gondal**, T.F. Qahtan, M.A. Dastager, U. Baig and G.H. McKinley Fabrication of textured membrane using unique spray coater for the remediation of oily waste water, submitted on USPTO 22nd August, 2017.

List of Publications:

Book/or book Chapters

1. **Book : M. A. Gondal**, X. Chang and M. A. Dastageer, “Advanced Structured Materials : Novel Bismuth Oxyhalide Based Materials and their Applications , published by Springer, ISBN(ebook): 978-81-322-3739-6; (Hardcover): 978-81-322-3737-2; DOI: 10.1007/978-81-322-3739-6.
2. **M. A. Gondal**, “LASER INDUCED PHOTO-CATALYSIS AND ITS APPLICATIONS” in the field of Environment published in the book entitled: Lasers in Chemistry edited by Maximilian Lackner published by Wiley and Sons, USA(Edition - September 2008; ISBN-10: 3-527-31997-2; ISBN-13: 978-3-527-31997-8 - Wiley-VCH, Weinheim).
3. A. Bagabas, **M. A. Gondal**, et al (2010), Laser-Induced Photocatalytic Inactivation of Coliform Bacteria in Water Using Pd-Supported on Nano-WO₃ Catalyst published in book entitled Scientific Bases for the Preparation of Heterogeneous Catalysts: edited by E. M. Gaigneaux (edition 2010), ISBN13: 9780444536013 ISBN10: 0444536019, Elsevier.
4. Khan, M.A., **Gondal, M. A.**, M.H. Rais and M. Rafique (1996), Gain in laser-pumped vapor: Experiment and calculations “ Laser Spectroscopy, 12, ed. M. Inguscio (*World Scientific, Singapore*).
5. X. Chang, **M.A. Gondal**, Z. H. Yamani, G. Ji (2013) “Bismuth(V) containing semiconductor compounds: preparation, optical properties and applications in heterogeneous photo-catalysis for water, ed. L.Handong, Z. M. Wang, Bismuth (V)-Containing Semiconductor Compounds and Applications in Heterogeneous Photocatalysis, page 343-373 Chapter · January 2013 DOI: 10.1007/978-1-4614-8121-8_15. Containing Compounds Series: Springer Series in Materials Science, Vol. 186, 2013,
6. **M. A. Gondal** and M. A. Dastageer (2013) Laser-Induced Breakdown Spectroscopy – Theory and Applications : ed. S. Musazzi and U. Perini (eds.), Laser-Induced Breakdown Spectroscopy, Springer Series in Optical Sciences 182 (2014), DOI: 10.1007/978-3-642-45085-3-4
7. V.K. Singh, N. Sharma, V. K. Singh, D. K. Tripathi, **M.A. Gondal** (2018): Elemental Imaging of Plant Species Using LIBS: Current Status and Future Prospects, in book, Springer Series in Optical Sciences

Publications in International (ISI Listed) Journals

1. R. A. AbuMousa, U. Baig, **M. A. Gondal**, M. S. AlSalhi, F. Y. Alqahtani , S. Akhtar, F. S. Aleanizy, M. A. Dastageer (2019) Photo-catalytic Killing of HeLa Cancer Cells Using Facile Synthesized Pure and Ag Loaded WO₃ Nanoparticles, Nature Scientific Reports (2018) 8:15224.
2. U. Baig, A. Matin, **M.A. Gondal**, S.M. Zubair (2018) Facile fabrication of superhydrophobic, superoleophilic photocatalytic membrane for efficient oil-water separation and removal of hazardous organic pollutants, Journal of Cleaner Production. Doi 10.1016/j.jclepro.2018.10.079.
3. Q.A. Drmosh, Z.H. Yamania, A.H. Hendi, M.A. Gondal, R.A. Moqbel, T.A. Saleh, M.Y. Khan (2018) A novel approach to fabricating a ternary rGO/ZnO/Pt system for high-performance hydrogen sensor at low operating temperatures, Applied Surface Science 464 (2019) 616–626.
4. M. Younas, **M. A. Gondal**, M. A. Dastageer, U. Baig (2019) Fabrication of Cost Effective and Efficient Dye Sensitized Solar Cells with WO₃-TiO₂ Nanocomposites as Photoanode and MWCNT as Pt-Free Counter Electrode, Ceramic International DOI: 10.1016/j.ceramint.2018.09.269
5. A. Matin, U. Baig, **M.A. Gondal**, S. Akhtar and S.M. Zubair (2018) Superhydrophobic and superoleophilic surfaces prepared by spray-coating of facile synthesized Cerium(IV) oxide nanoparticles for efficient oil/water separation, Applied Surface Science 462 (2018) 95-104.
6. U. Baig, **M.A. Gondal**, M.A. Dastageer, A.B. Khalil, S. M. Zubair (2018) Photo-catalytic deactivation of hazardous sulfate reducing bacteria using palladium nanoparticles decorated silicon carbide: A comparative study with pure siliconcarbide nanoparticles, J. Photochemistry & Photobiology B, 2018:1-7.
7. A.A.I.Khalil, R Al-Tuwirqi, **M.A. Gondal**, N Al-Suliman - Factors affecting improvement of fluorescence intensity of quartet and doublet state of NO diatomic molecule excited by glow discharge, Chinese Physics B, 27, (8) 085202: 1-8, 2018
8. V. K. Sing, **M.A. Gondal** et al (2018) Laser Induced Breakdown Spectroscopy: A Novel Technology Identifying Microbes Causing Infectious Diseases, Biophysical Reviews <https://doi.org/10.1007/s12551-018-0465-9>

9. T.O. Owolabi, **M. A. Gondal** (2018) Quantitative analysis of LIBS spectra using hybrid chemometric models through fusion of extreme learning machines and support vector re-gression, *Journal of Intelligent and Fuzzy Systems* (accepted).
10. U. Baig, **M. A. Gondal**, M. A. Ansari, S. Akhtar, Facile synthesis, characterization and antibacterial activity of nanostructured palladium loaded silicon carbide, *Ceramic International*, Volume 44, Issue 14, 1 October 2018, Pages 16908-16914
11. M. Younas, **M.A. Gondal**, U. Mehmood, K. Harrabi, Z.H. Yamani, FA Al-Sulaiman, Performance enhancement of dye sensitized solar cells via co-sensitization of ruthenizer Z907 and organic sensitizer SQ2, *Inter. J. Energy Research* 2018:1-9.
12. A. Bake, N.Merah, A.Matin, **M.A.Gondal**,T.Qahtan, A.Abu Dheir (2018) Preparation of transparent and robust superhydrophobic surfaces for self-cleaning applications, *c*, 122, 170-178 (2018).
13. I. K. Popoola, **M. A. Gondal**, J. M. Al-Ghamdi, and Talal F. Qahtan (2018) Photofabrication of Highly Transparent Platinum Counter Electrodes at Ambient Temperature for Bifacial Dye Sensitized Solar Cells, *Nature Scientific Reports (2018) 8:12864* | DOI:10.1038/s41598-018-31040-1
14. T.O. Owolabi, **M. A. Gondal** (2018), Development of hybrid extreme learning machine based chemometrics for precise quantitative analysis of LIBS spectra using internal reference pre-processing method, *Analytica Chimica Acta* (accepted as ref. ACA 235966).
15. I. Rehan, **M.A. Gondal**, K. Rehan (2018) Determination of lead content in drilling fueled soil using laser induced spectral analysis and its cross validation using ICP/OES method, *Talanta*, 182(2018) 443-449.
16. I. I. Roslan, K. Ng, **M. A. Gondal**, C. Basheer, M. A. Dastageer, S. Jaenicke and G. K. Chuah, Visible Light-Mediated Coupling of Thioureas and 1,3-Dicarbonyls: Towards a Leaving Group-Free Synthesis of Aminothiazoles, *Advanced Synthesis & Catalysis.*, 360 (2018) 1584 – 1589.
17. I. Rehan, **M. A. Gondal**, K. Rehan (2018) Optimized Laser Induced Breakdown Spectrometer for Determination of Xenobiotic Silver in Mono-Sodium Glutamate and Its Verification using ICP-AES, *Applied Optics*, 57, no12 (2018) 3191-3197.
18. M. A. Almessiere, R. Altuwiriqi, **M. A. Gondal**, R.K. AlDakheel, H. F. Alotaibi (2018) Qualitative and quantitative analysis of human nails to find correlation between nutrients and vitamin D deficiency using LIBS and ICP-AES, *Talanta*, 185, (8) 2018, 61-70.
19. R. A. Moqbel, **M. A. Gondal**, T. F. Qahtan, M. A. Dastageer (2018) Synthesis of Efficient Visible-Light-Active ZnO/rGO Nanocomposites by Pulsed Laser Ablation in Liquid for Improved Photo-catalytic Activity, *Materials Research Express* 42 (4), 1487-1495(2018).
20. G. Liu, S. Wang, **M. A. Gondal**, K. Shen, Q. Xu (2018), Enhanced Visible Light Photocatalytic Performance of G-C₃N₄ Photocatalysts Co-Doped with Gold and Sulfur for Degradation of Persistent Pollutant (Rhodamine B) *J. Nanosc. and Nanotechnology* Vol. 18, 1–8, 2018.
21. T. O. Owolabi, **M. A. Gondal** (2017) A hybrid intelligent scheme for estimating band gap of doped titanium dioxide semiconductor using crystal lattice distortion, *Computational Materials Science* 137 (2017) 249–256.
22. A. Lais, **M.A. Gondal**, M. A. Dastageer (2018), A review of semiconducting oxide photocatalysts for reduction of CO₂ to methanol, *Environ. Chem. Letters*, 16, 183-210 (2018).
23. R. A. Moqbel, **M. A. Gondal**, T. F. Qahtan, M. A. Dastageer (2018), Synthesis of Cadmium Sulfide-Reduced Graphene Oxide Nanocomposites by Pulsed Laser Ablation in Liquid for the Enhanced Photocatalytic Reactions in the Visible Light, *Inter. J. Energy Research* Volume42, Issue4, Pages 1487-1495.
24. A. Matin, U. Baig, **M.A. Gondal**, S. Akhtar and S.M. Zubair (2018) Facile fabrication of superhydrophobic/superoleophilic microporous membranes by spray-coating ytterbium oxide particles for efficient oil-water separation, *Journal of Membrane Science*, 548, 390–397 (2018).
25. I. K. Popoola, **M. A. Gondal**, T. F. A. Qahtan (2018), Recent progress in flexible perovskite solar cells: materials, mechanical tolerance and stability, *Renewable and Sustainable Energy Reviews*, 82(2), 2018, 3127-3151(2018).
26. Guixian Liu ,Xingdu Qiao , **M.A. Gondal** , Yun Liu , Kai Shen , Qingyu Xu (2017), Comparative Study of Pure G-C₃N₄ and Sulfur-Doped G-C₃N₄ Catalyst Performance in Photo-Degradation of Persistent Pollutant (Rhodamine B) Under Visible Light , *J. Nanoscience and Nanotechnology* 18 (6), 4142-4154.

27. A. Lais, **M.A. Gondal**, M. A. Dastageer (2018) Experimental Parameters affecting the Photocatalytic Reduction Performance of CO₂ to Methanol: A Review, *Inter. J. Energy Research*, *Int J Energy Res.* 2018;42:2031–2049.
28. **M. A. Gondal**, T.A. Fasasi, Umair Baig, A. Mekki (2018), Effects of Oxidizing Media on the Composition, Morphology and Optical Properties of Colloidal Zirconium Oxide Nanoparticles Synthesized Via Pulsed Laser Ablation in Liquid Technique, *J. Nanoscience and Nanotechnology* 18 (6), 4030-4039.
29. G. Kwon, D. Panchanathan, S. R. Mahmoudi, **M. A. Gondal**, G. H. McKinley, and K. K. Varanasi (2017) Visible-light-guided Manipulation of Liquid wettability on Photo-responsive Surfaces, *Nature Communications* 8, 14968 (2017).
30. **M. A. Gondal**, M. A. Dastageer, T. F. Qahtan, M. S. Sadullah, Umair Baig, G. H. McKinley (2017) Fabrication and Wettability Study of Metal Oxide Photocatalytic Membrane for Oil-Water Separation, *Nature Scientific Reports* 7, 1686 (2017).
31. T. F. Qahtan, **M. A. Gondal**, M. A. Dastageer, Fabrication of Thermally and Mechanically Stable Superhydrophobic Surfaces by Facile Spray Coating of Stable Carbon Nanoparticle Dispersion Prepared from Candle Soot, *Nature Scientific Reports* 7 (1), 7531 (2017).
32. T. O. Owolabi, **M. A. Gondal** (2018), Novel techniques for enhancing the performance of support vector regression chemo-metric in quantitative analysis of LIBS spectra, *J. Analytical Atomic Spectrometry*, DOI: 10.1039/C7JA00229G (on line available).
33. Kai Shen , **M.A. Gondal** (2017) Removal of hazardous Rhodamine dye from water by adsorption onto exhausted coffee ground , *J. Saudi Chemical Society* (2017) 21, S120–S127.
34. R. Khan, **M. A. Gondal**, A. Khalil, Z. U. Rehman, Z. Muhammad, Y. A. Haleem, C. Wang, C. Q. Wu, L. Song (2017), Facile synthesis of CuFe 2 O 4–Fe 2 O 3 composite for high-performance supercapacitor electrode applications, *Materials Research Express*, 4, issue 10, 105501(2017).
35. D. Panchanathan, G. Kwon, T. Qahtan, **M. A. Gondal**, K. Varanasi, G. McKinley (2017) Kinetics of Photoinduced Wettability Switching on Nanoporous TiO₂ Surfaces under Oil, *Advanced Materials Interfaces Adv. Mater. Interfaces* 2017, 4, 1700462.
36. **M. A. Gondal**, Abu Lais, M.A. Dastageer, D. Yang, K. Shen, X. Chang, Photocatalytic conversion of CO₂ into methanol using graphitic carbon nitride under solar, UV laser and broadband radiations, *Inter. J. Energy Research* 41(14), pp. 2162-2172, 2017.
37. **M. A. Gondal**, M.A. Dastageer, L.E. Oloore, U. Baig (2017), Laser Induced Selective Photo-catalytic Reduction of CO₂ into Methanol using In₂O₃ -WO₃ Nano-Composite, *J. Photochem. & Photobiol. A* 343, 40-50, 2017.
38. A. M. Ilyas, **M. A. Gondal**, U. Baig. S. Akhtar and Z.H.Yamani (2017)Titanium dioxide-cadmium sulfide nanocomposite synthesis using Pulsed Laser Ablation in liquid and its evaluation in photocatalytic and photovoltaic applications, *Inter. J. Energy Research* 41, Issue 10, 2017, 1422-1435
39. Z.S. Seddigi, **M.A. Gondal**, Umair Baig, Abul Lais, Saleh A. Ahmed, N.H. Yarkandi, M. A. Abdulaziz (2017) Facile Synthesis of Light Harvesting Semiconductor Bismuth Oxychloride Nano Photo-catalysts for Efficient Removal of Hazardous Organic Pollutants , *PLOS One* 12, issue 2, p e0172218(2017) <https://doi.org/10.1371/journal.pone.0172218>.
40. **M.A. Gondal**, M. A. Dastageer, L.E. Oloore, U. Baig, S.G. Rashid (2017), Enhanced photo-catalytic activity of ordered mesoporous indium oxide nanocrystals in the conversion of CO₂ into methanol, *J. Environmental Science and Health, Part A Volume* 52, 2017 - Issue 8, 785-793.
41. U. Baig, **M.A. Gondal**, A. M. Ilyas (2017), Band gap engineered polymeric-inorganic nanocomposite catalysts: Synthesis, isothermal stability, photocatalytic activity and photovoltaic performance, *Journal of Materials Science & Technology* 33 (2017) 547–557
42. D. Yang, **M. A. Gondal**, Z. H. Yamani , U. Baig, X. Qiao, G. Liu (2017), 532 nm nanosecond pulse laser triggered synthesis of ZnO₂ nanoparticles via a fast ablation technique in liquid and their photocatalytic performance, *Mater. Science . Semicond. Processing*, 57 (2017) 124–131.
43. A. M. Ilyas, **M.A.Gondal**, U. Baig. S. Akhtar and Z.H.Yamani (2016)Photovoltaic performance and photocatalytic activity of facile synthesized graphene decorated TiO₂ monohybrid usingnanosecond pulsed laser ablation inliquid technique, *Solar Energy*, 137, 246-255, 2016.
44. V. K. Singh, A Gupta, O Gupta, V Kumar, **M. A. Gondal** (2017), Spectroscopic Evaluation of *Cyperus rotundus* Rhizomes Using WD-XRF, LIBS, FTIR and UV-Vis Spectroscopy, *Material Focus*, Vol. 5, pp. 7–17, 2017.

45. **M.A. Gondal**, M.A. Suliman, M.A. Dastageer, Gaik-Khuan Chuah, C. Basheer, Dan Yang, A. Suwaiyan, Visible Light Photocatalytic Degradation of Herbicide (Atrazine) using Surface Plasmon Resonance Induced in Mesoporous Ag-WO₃/SBA-15 Composite J. Mol. Catalysis A, 425, (2016) 208–216
46. U. Baig and **M.A. Gondal** et al (2016) Pharmacological Evaluation of Poly(3-Methylthiophene) and its Titanium(IV)phosphate Nanocomposite: DNA Interaction, Molecular Docking and Cytotoxic Activity, J. of Photochemistry & Photobiology B, 164 (2016) 244–255.
47. B. Gondal, **M.A. Gondal**, M.F. Siddiqui, M. Sarwar, M. Bissonnette. “Colon Cancer and Heavy Metal Exposure: Exploration of Etiology and Risk Factors Using Advanced Laser Spectro-chemical Analysis”. American Journal of Gastroenterology, Oct issue, 2016.
48. X. Chang, Lin Xie, Wei E.I. Sha, K. Lu, Q. Qi, Chenyu Dong, Xingxu Yan, **M.A. Gondal**, S. G. Rashid, Qi I. Dai, W. Zhang, Longqi Yang, Xingdu Qiao, Liang Mao, Peng Wang (2017) Probing the light harvesting and charge rectification of bismuth nanoparticles behind the promoted photoreactivity onto Bi/BiOCl catalyst by (in-situ) electron microscopy, Appl. Catal. B, 201, 1 February 2017, 495-502
49. B. B.S. Jaswal, P.K. Rai, **M. A. Gondal**, V. K. Singh (2016), Spectroscopic Investigations of Calcium Oxalate Kidney Stone Using Fourier Transform Infra-Red Spectroscopy and Laser-Induced Breakdown Spectroscopy, Material Focus, Vol. 5, pp. 1–5, 2016.
50. A.A.Khalil, W. O. Younis, **M.A. Gondal** (2016) A comparative study of highly-ionized Al plasma based on dual pulse laser-induced breakdown spectroscopy, Indian J. Phys (2017) Vol 91, 327-336.
51. **M.A Gondal**, Adeseda, A.A., Rashid, S.G., Hameed, A. Aslam, M. Ismail, I.M.I. Baig, U., Dastageer, M.A., Al-Arfaj, A.R. Rehman (2016) Facile synthesis, characterization and photocatalytic performance of Au-Ag alloy nanoparticles dispersed on graphitic carbon nitride under visible light irradiations, J. Mole. Catalysis A, 423, Pages 114-125. (2016)
52. U. Baig and **M.A. Gondal** (2016), Design, facile synthesis, molecular docking, DNA binding and cytotoxic activity of polythiophene and polythiophene-titanium(IV)phosphate nanocomposite International Journal of Polymeric Materials, 66, 243-257 (2017).
53. D. Yang, **M. A. Gondal**, Z. H. Yamani, Qingyu Xu, Dinghan Xiang, Junkui Mao, and Kai Shen (2016) Enhanced Photosensitization Decomposition of Rhodamine B Onto BiOCl Nanosheets with Controllable-Exposed {001} Facets, Nanoscience and Nanotechnology Letters, Vol. 8, 1–8, 2016.
54. U. Baig, **M. A. Gondal** (2016) Facile Synthesis of Polypyrrole-Zirconium(IV) Oxide-Ethanolamine Anion Exchange Nanocomposite and Its Utilization in Membrane Electrode Development for Sensing and Quantitative Detection of As(III) in Water, Nanoscience and Nanotechnology Letters, Vol. 8, 9–16, 2016
55. **M. A. Gondal**, A. M. Ilyas, Umair Baig (2016) Pulsed laser ablation in liquid synthesis of ZnO/TiO₂ nanocomposite catalyst with enhanced photovoltaic and photocatalytic performance, Ceramic International 42 (11), 13151-13160 (2016)
56. **M. A. Gondal**, T. A. Fasasi, A. Mekki, T. A. Saleh, A. M. Ilyas, T. F. Qahtan, and X. Chang (2016) Phase Transformation and Structural Characterization Studies of Aluminum Oxide (Al₂O₃) Nanoparticles Synthesized Using an Elegant Pulsed Laser Ablation in Liquids Technique, Nanoscience and Nanotechnology Letters, Vol. 8, 17–25, 2016.
57. Z. S. Seddigi, **M. A. Gondal**, S.G. Rashid, M. A. Abdulaziz, S. A. Ahmed (2016) Facile synthesis and catalytic performance of nanosheet – nanorods g-C₃N₄-Bi₂WO₆ heterojunction catalyst and effect of silver nanoparticles loading on bare Bi₂WO₆ and g-C₃N₄-Bi₂WO₆ for N-deethylation process, J. Molecular Catalysis A, 420 (2016) 167–177.
58. A. O. Mehder, Y. B. Habibullah, **M. A. Gondal**, Umair Baig (2016), Qualitative and Quantitative Spectro-Chemical Analysis of Dates Using UV-Pulsed Laser Induced Breakdown Spectroscopy and Inductively Coupled Plasma Mass Spectrometry, Talanta 155(2016)124–132.
59. **M. A. Gondal**, A. M. Ilyas, Umair Baig (2016) Facile synthesis of silicon carbide-titanium dioxide semiconducting nanocomposite using pulsed laser ablation technique and its performance in photovoltaic dye sensitized solar cell and photocatalytic water purification, Applied Surface Science Volume 378, p. 8-14.
60. B. Gondal, **M.A. Gondal** and M.A. Shamees, Gallstones and Gallbladder Cancer: Gaging Levels of Carcinogens in Gallstones Using Highly Sensitive Laser Based Spectrochemical Composition, Gastroenterology 150 (4) June Issue, 2016.

61. **M. A. Gondal**, Y. B. Habibullah, Umair Baig, L. E. Oloore (2016) Direct Spectral Analysis of Tea Samples using 266 nm UV pulsed Laser-induced Breakdown Spectroscopy and Cross Validation of LIBS Results with ICP-MS, *Talanta*, 152 (2016) 341–352.
62. B. B. S. Jaswal, J.Sharma, P. K. Rai, **M.A. Gondal**, V. K. Singh (2016) Analysis of Heterogeneous Gallstones using Laser Induced Breakdown Spectroscopy (LIBS) and Wavelength Dispersive X-Ray Fluorescence (WD-XRF), *Lasers in Medicine* published, DOI 10.1007/s10103-016-1905-z
63. M. Aslam, M. Tahir Soomro, Iqbal M. I. Ismail, Huda A. Qari, **M. A. Gondal** and A. Hameed (2016), The facile synthesis, characterization and evaluation of photocatalytic activity of bimetallic FeBiO₃ in natural sunlight exposure, *RSC Advances* , 2015, 5, 102663.
64. A. O. Mehder, **M. A. Gondal**, M. A. Dastageer, Y. B. Habibullah, M. A. Iqbal, L. E. Oloore (2016), Direct spectral analysis and determination of high content of carcinogenic bromine in bread using UV pulsed laser induced breakdown spectroscopy, *J.Environmental Science and Health part A* <http://dx.doi.org/10.1080/03601234.2016.1142317>.
65. **M. A. Gondal**, M. A. Shemis, Ahmed A. I. Khalil, M.M. Nasr, B. Gondal (2016) Laser Produced Plasma Diagnosis of Carcinogenic Heavy Metals in Gallstones, *Journal of atomic and Analytical spectrometry JAAS*, 2016, 31, 506 – 514.
66. N. Ahmad, **M. A. Gondal**, A. K. Sheikh (2016), Comparative study of different solar based photo catalytic reactors for disinfection of contaminated water, *Desalination and Water Treatment* 57 (1) pp. 213 - 220 (2016).
67. **M. A. Gondal**, A.M. Ilyas, T. A. Fasasi , M.A. Dastageer, Z. S. Seddigi, T.F. Qahtan, M. Faiz, G. D. Khattak (2016), Synthesis of Green TiO₂/ZnO/CdS Hybrid Nano-catalyst for Efficient Light Harvesting using an Elegant Pulsed Laser Ablation in Liquids Method, *Applied Surface Science* 357 (2015) 2217–2222.
68. Z. S. Seddigi, S.A. Ahmed, A. Bumajdad, **M. A. Gondal**, E. Y. Danish, A.M. Shawky, N. H. Yarkandi (2016), Photocatalytic Degradation of Tert-Butyl Alcohol and Tert-Butyl Formate Using Palladium-Doped Zinc Oxide Nanoparticles with UV- Irradiation, *Desalination and Water Treatment*, Vol. 57/2 , 2016.
69. **M. A. Gondal**, M. A. Shemis , Bilal Gondal and Ahmed A. I. Khalil (2016) Gallbladder Stones Analysis Using Pulsed UV Laser Induced Breakdown Spectroscopy, *Journal of Medical and Bioengineering* Vol. 5, No. 2, 85-88.
70. M. Aslam, M.T. Qamar, M.Tahir Soomro, Iqbal M.I. Ismail, Numan Salah, Talal Almeelbi, **M.A. Gondal**, A. Hameed (2016), The Effect of Sunlight Induced Surface Defects on the Photocatalytic Activity of Nanosized CeO₂ for the Degradation of Phenol and its Derivatives, *Appl. Catalysis B* 180 (2016) 391–402.
71. **M. A. Gondal**, M. A. Dastageer, A.Khalil, S.G. Rashid, U. Baig (2015) Photo-catalytic deactivation of sulfate reducing bacteria – a comparative study with different catalysts and the preeminence of Pd-loaded WO₃ nanoparticles, *RSC Advances* **2015**, 5, 51399–51406.
72. R. Altuwiriqi, **M.A. Gondal**, H.Al-Jawhari, A.K. Sheikh (2015) Concentrator photovoltaic system and its advantages for Saudi Arabia: A simulation study, *Int. J. Renew. Energy Research*, 5, 732-738 (2015).
73. **M. A. Gondal**, M. A. Dastageer, F.F. Al-Adel, A.A. Naqvi, Y. B. Habibullah
Detection of highly toxic elements (Lead and Chromium) in commercially available eyeliner (Kohl) Using Laser Induced Break Down Spectroscopy, *J. Optics and Laser Technology* , Vol 75, pp. 99-104 (2015).
74. **M.A. Gondal**, Y. B. Habibullah, L. E. Oloore, M. A. Iqbal (2015) Determination of carcinogenic Fluorine in cigarettes using pulsed UV laser induced breakdown spectroscopy, *Applied Optics* Vol. 54, Issue 17, pp. 5560-5567 (2015).
75. A.A.Naqvi, F.Z., Khiari, M. Maslehuddin, **M.A. Gondal**, O.S.B Al-Amoudi, M.S. Ukashata, A.M. Ilyas, F. A Liadi, A.A. Isab, Khateeb-ur Rehman, M. Raashid, M.A. Dastageer (2015) Pulse height Tests of a large diameter fast LaBr₃:CE scintillation detector, *Applied Radiation and Isotopes* Vol 104, 224-231(2015).
76. U. Baig, **M. A. Gondal**, M. F. Alam, A. A. Laskar, M. Alam, H. Younus (2015), Enzyme immobilization and molecular modeling studies on organic-inorganic polypyrrole titanium (IV) phosphate nanocomposite, *New Journal of Chemistry*, 2015, 39, 6976 – 6986.
77. T. O. Owolabi, **M. A. Gondal** (2015) Estimation of surface tension of methyl esters biodiesels using computational intelligence technique, *Applied Soft Computing Journal*, 37 pp. 227-233(2015).

78. X. Chang, S. Wang, Q. Qi, **M. A Gondal**, S. G Rashid, S. Gao, D. Yang, K. Shen, Qingyu Xu and Peng Wang (2015) Insights into the Growth of bismuth nanoparticles on 2D structured BiOCl photocatalyst: An insitue TEM investigation, Dalton Transactions Dalton Trans., 2015, 44, 15888
79. M. Aslam, M. Tahir Soomro, Iqbal M. I. Ismail, N. Salah, **M. A. Gondal**, A. Hameed (2015) Sunlight mediated removal of chlorophenols over tungsten supported ZnO: Electrochemical and photocatalytic studies, Journal of Environmental Chemical Engineering, Volume 3, Issue 3, 3 August 2015, Pages 1901-1911.
80. U. Baig, R. A. K. Rao, A.A. Khan, M.M. Sanagi, **M. A. Gondal** (2015) Removal of carcinogenic hexavalent chromium from aqueous solutions using newly synthesized and characterized polypyrrole-titanium (IV) phosphate nanocomposite, Chem. Eng. Journal 280 (2015) 494–504.
81. A. M. Alhasmi, **M. A. Gondal**, M. M. Nasr, S. Shafik, Y. B. Habibullah (2015) Detection of toxic elements using Laser Induced Breakdown Spectroscopy in smoker and nonsmoker's teeth and investigation of periodontal parameters, Applied Optics Vol. 54, Issue 24, (2015) 7342-7349
82. S.G. Rashid, **M. A. Gondal**, A. Hameed, M. Aslam, M.A. Dastageer, Z. H. Yamani and D. H. Anjum (2015), Synthesis, characterization and visible light photocatalytic activity of Cr³⁺ and Ce³⁺ co-doped TiON for the Degradation of Humic Acid, RSC Advances ,5(41) (2015) 32323-32332
83. N. M. Maalej, A. Quraishi, R. Maalej, R. Lachheb, M. N. Shaikh, M. Ilyas, **M.A. Gondal** (2015) Synthesis of Gd₂O₃:Eu Nanoplatelets for MRI and Fluorescence Imaging, Nanoscale Research Letters 2015, 10:215
84. X. Chang, S. Wang, Q. Qi, **M. A. Gondal**, S.G. Rashid, D. Yang, M.A. Dastageer, K. Shen, Q. Xue, P. Wang (2015) Constrained Growth of Ultrasmall BiOCl Nanodiscs and Their Enhanced Photoreactivity Under Visible Light Irradiation, Applied Catalysis B 10/2015; 176-177 :201-211
85. **M. A. Gondal**, T. F. Qahatan, M.A. Dastageer, Z.H. Yamani, D. H. Anjum (2015) A Rapid and Cost-Effective Laser Based Synthesis of High Purity Cadmium Selenide Quantum Dots, J. Nanoscience and Nanotechnology, 16 (2016) 867-872.
86. M.A. Randhawa, **M.A. Gondal**, H. J. AL-Zahrani S.G. Rashid, M.A. Ali (2015). Synthesis, morphology and antifungal activity of nano particulated amphotericin-B, ketoconazole and thymoquinone against Candida albicans yeasts and Candida-biofilm, J. Env. Science and Health A (2015) 50, 119–124.
87. H. Shi, **M.A. Gondal**, A.A. Al-Saadi, X. Chang (2015), Visible-light-induced Photo-degradation Enhancement of Methyl Orange over Bismuth Oxybromide Through a Semiconductor Mediated Process, J. Advanced Oxidation Technology, 18 (2015), Page: 78-84.
88. X. Chang, J. Zheng, **M. A. Gondal**, G. Ji (2015) Photocatalytic conversion of CO₂ into value-added hydrocarbon (methanol) with high selectivity over ZnS nanoparticles driven by 355-nm pulsed laser, Res. Chem. Intermed 41 (2015) 739–747.
89. S. Shi, M.S. Sadullah, **M.A. Gondal**, Yihe Sui, Suqiao Liu, Z.H. Yamani, Kai Shen Qingyu Xu, Xiaofeng Chang, Junkui Mao (2015) Wetting and non-wetting behavior of abrasive paper for oil water separation and oil spill cleanup, Research on Chemical Intermediates, 41 (2015) pp 8019–8029
90. **M.A. Gondal**, A.A. Adesida, S.G. Rashid, S. Shi, R. Khan, Z.H. Yamani, K. Shen, Q. Xu, Z. S. Seddigi, X. Chang, (2015) Preparation of WO₃/g-C₃N₄ composites and their enhanced photodegradation of Rhodamine B in aqueous solution under visible light irradiation, Reaction Kinetics, Mechanisms and Catalysis: Volume 114, Issue 1 (2015), Page 357-367.
91. Zaki S. Seddigi, Saleh A. Ahmed, Ali Bumajdad, Ekram Y. Danish, **M. A. Gondal**, Ahmed M. Shwaky, Mustafa Soylak (2015), The efficient photocatalytic degradation of methyl tert-butyl ether under Pd/ZnO and visible light irradiation, Photochemistry and Photobiology 91, 265-271 (2015).
92. Guangbin Ji, Yousong Liu, Lei Zhu, Junyi Wang, Bin Zhang, Xiaofeng Chang, **M. A. Gondal**, M. A. Dastageer (2014), High-Active Direct Z-scheme Si/TiO₂ Photocatalyst for Boosted CO₂ Reduction into Value-added Methanol, RSC Advances, 4 (100) pp. 56961 – 56969.
93. **M. A. Gondal**, M. S. Sadullah, M. A. Dastageer, Divya, G. H. McKinley, K. K. Varanasi (2014) Study of factors governing oil water separation process using TiO₂ films prepared by spray deposition of nanoparticle dispersions, ACS Appl. Materials and Interfaces, 6(16) 13422-134299 (2014).
94. **M. A. Gondal**, Y. W. Maganda, M.A. Dastageer, F. F. Al Adel, A. A. Naqvi, T. F. Qahtan (2014), Optimization of Plasma Parameters and Detection of Fluoride in Toothpaste using Laser Induced Breakdown Spectroscopy, Optics & Laser Technology 57 (2014) 32–38.

95. **M. A. Gondal**, Y. W. Maganda, M.A. Dastageer, F. F. Al Adel, A. A. Naqvi , T. F. Qahatan (2014) Detection of Carcinogenic Chromium in Synthetic Hair Dyes using Laser Induced Breakdown Spectroscopy, *Applied Optics*, Vol. 53, pp.1636-1643 (2014).
96. Hameed, M. Aslam, M. I. Ismail, **M. A. Gondal** (2014), Sunlight assisted photocatalytic mineralization of nitrophenol isomers over W6+ impregnated ZnO, *Applied Catal. B, Environment*, 160 -161(1) 227-239.
97. **M. A. Gondal**, R Fajgar, X. Chang, K. Shenb, Q. Xu (2014) ArF excimer laser-induced deposition of Ag/C nanocomposite thin films in the presence of n-Hexane, *Appl. Surface Science* 311(2014) 95-100.
98. K. Shen , **M. A. Gondal** , X. Chang , M. A. Ali (2014) Batch and column adsorption of dye contaminants using a low-cost sand adsorbent, *Research on Chemical Intermediates*, Vol 113, Sept issue (2014).
99. S.Shi; **M. A. Gondal**; S.G. Rashid ; Q. Qi; A.A. Al-Saadi ; Z.H. Yamani; Yihe Sui; Qingyu Xu; Kai Shen (2014) Synthesis of g-C3N4/BiOCl_xBr_{1-x} hybrid photocatalysts and the photoactivity enhancement driven by visible light, *Colloids and Surfaces A: Physicochem. Eng. Aspects* 461 (2014) 202–211.
100. A. A.I. Khalil, **M. A. Gondal**, M. A. Dastageer, Detection of Trace Elements in Non-Degradable Organic Spent Clay Waste Using Optimized Dual-Pulsed Laser Induced Breakdown Spectrometer, *Applied Optics*, Vol. 53, pp.1709-1717 (2014).
101. J. Wang, G. Ji, Y. Liu, **M.A. Gondal**, X. Chang (2014) Cu₂O/TiO₂ Hetero structure nanotube arrays prepared by an electro-deposition method exhibiting enhanced photo-catalytic activity for CO₂ reduction to methanol, *Catalysis Communications*, 46, 17-21 (2014).
102. K.Shen, **M.A. Gondal**, R.G Rashid, S.Shi, S.Wang, J. Sun, Q.Su (2014)Preparation of ternary Ag/Ag₃PO₄/g-C₃N₄ hybrid photocatalysts and their enhanced photocatalytic activity driven by visible light, *Chin. J. Catalysis*, 35, 78-84 (2014).
103. **M. A. Gondal**, M. N.Siddiqui (2014), Nano-catalysts supported laser-induced photocatalytic degradation of MTBE, *J. Env. Science and Health A* 49 (1), 52-58 (2014).
104. A. Hameed, M. Aslam, M. I. Ismail, **M. A. Gondal** (2014), Photocatalytic Conversion of Methane into Methanol: Performance of silver impregnated WO₃, *Applied Catalysis A: General* 470 (2014) 327– 335.
105. S. Shi, **M. A. Gondal**, A. A. Al-Saadi , R. Fajgar , J. Kupcik ,X. Chang , K. Shen Q. Xu , Z. S. Seddigi (2014)Facile preparation of g-C3N4 modified BiOCl hybrid photocatalyst and vital role of frontier orbital energy levels in photo-activity enhancement for removal of model compounds *Colloid & Interface Science* 416 (2014) 212–219.
106. Z. Ali, M. Aslam, I.M. Ismail, A. Hameed, S. T. Hussain, M. N.Chaudhry, **M. A. Gondal** (2014), synthesis, characterization and photocatalytic activity AL₂O₃-TiO₂-based composites, *J. Env. Science and Health A* 49 (1), 125-134.
107. Z. Li, **M.A. Gondal**, Z.H. Yamani (2014) Preparation of Magnetic Separable CoFe₂O₄/PAC Composite and the Adsorption of Bisphenol A from Aqueous Solution, *J. Sa. Chem. Soc.* 18 (3)208-213.
108. K.Shen, **M.A. Gondal** (2014) Removal of Hazardous Rhodamine Dye from Water by Adsorption onto Exhausted Coffee Ground, *J. Saudi Chem. Soc.* on line available.
109. Kai Shen, **M. A. Gondal** , A. A. Al-Saadi , Li Liye, Xiaofeng Chang ,Qingyu Xu (2015), Visible light induced photodegradation of Rhodamine dyes over BiOCl and the vital importance of frontier orbital energy of the dye molecules in the reaction kinetics, *Research on Chemical Intermediates*, 41, 2753-2766.
110. A. A. Naqvi, Faris A. Al-Matouq, F. Z. Khiari, **M. A. Gondal**, K. Rehman, A. A. Isab , M. Rashid (2013), 350keV Accelerator based PGNA Setup to Detect Nitrogen in Bulk Samples, *Nuclear Instruments and Methods in Physics Research A* 729 (2013) 8–13.
111. **M. A. Gondal**, T.F. Qahtan , M.A. Dastageer, M.Y. Maganda, D. H. Anjum (2013) Effects of Oxidizing Medium on the Composition, Morphology and Optical Properties of Copper Oxide Nanoparticles produced by Pulsed Laser Ablation, *Appl. Surf. Science* 286 (2013) 149– 155.
112. B. Zhang, G. Ji, **M. A. Gondal**, Y. Liu, X Zhang, X. Chang, N. Li, (2013) Rapid adsorption properties of flower-like BiOI nanoplates synthesized via a simple EG-assisted solvothermal process, *J. Nanoparticle Research* (2013) 15: 1773.
113. K. Shen , **M.A. Gondal**, Q. Xu , S. Shi , X.Chang(2013), Synthesis of RhB/BiOBr hybrid photocatalyst and its utilization in enhanced degradation of methyl orange via visible-light induced photosensitization process, *J. Adv. Oxid. Technol.* Vol. 17, No. 1, 2014, Page: 121-126.

114. S. G. Rao, **M. A. Gondal** and M. A. Dastageer (2013) Thickness Dependent Morphology and Optical Study of Thin Films on Patterns of Self-assembled Monolayers, *Surface and Coatings Technology* , 231, 412 – 417 (2013) .
115. **M. A. Gondal**, M.A. Ali, M.A. Dastageer, C. Chang(2013), CO₂ Conversion into Methanol Using Granular Silicon Carbide (α 6H-SiC): A Comparative Evaluation of 355 nm Laser and Xenon Mercury Broad Band Radiation Sources, *Catal. Letters*, 193, 108-117(2013).
116. L. Li , **M.A.Gondal** , J. Sun , K. Shen , X. Chang(2013) Significant enhancement in removal of Methyl Orange from aqueous solution in the presence of Rhodamine B using Ag₃PO₄ photo-catalyst, *Energy and Environment Focus* 2, 188-194 (2013).
117. **M.A. Gondal**, M. N.Siddiqui, K.Al-Hooshani (2013), Removal of sulfur compounds from diesel using ArF laser and oxygen *J. Env. Science and Health A* (2013) 48, 1663–1669.
118. T. Hussain, **M.A. Gondal** (2013), Laser induced breakdown spectroscopy (LIBS) as a rapid tool for material analysis. *J. Physics (IOP)*, Vol 439, issue 1, 012050 (2013).
119. F. F. Adel, M. A. Dastageer, K Gasmi, **M. A. Gondal** (2013), Optimization of laser induced breakdown spectroscopy method for analysis of liquid samples, *J. Appl. Spectroscopy* Vol. 80, 777-780 (2013).
120. **M. A. Gondal**, S. G. Rashid, M. A. Dastageer, S. M. Zubair, M. A. Ali, J. H. Lienhard, G. H. McKinley, K. K.Varanasi (2013) Sol-gel Synthesis of Au/Cu-TiO₂ Nanocomposite and their Morphological and Optical Properties, *IEEE Journal Photonics*, vol 5, issue 3 (2013).
121. B. Zhang, G. Ji, Y. Liu, **M. A. Gondal**, X. Chang(2013),Efficient adsorption and photocatalytic performance of flower-like three-dimensional (3D) Idoped BiOCIBr photocatalyst, *Catalysis Communication* 36, 25-30 (2013).
122. **M. A. Gondal**, M.A. Dastageer, S.G.Rashid, S. M.Zubair, M. A. Ali, D. H. Anjum J.H. Lienhard, G.H. McKinley, K.Varanassi (2013) Plasmonic Resonance Enhanced Photo-catalysis in the Visible Region with Au/Cu:TiO₂ nanocomposites - Prospect for Solar Energy Utilization for Various Applications: Case study of Cr (VI) Removal from Water, *Science of Advanced Materials*, vol 5, 1-8 (2013).
123. G. D. Khattak, A. Mekki, **M.A. Gondal** (2013) XPS studies of pulsed laser induced surface modification of vanadium phosphate glass samples, *Journal of Chemistry Physics & Solids* 74,13-17(2013).
124. Q. A. Drmsh, S. G. Rao, Z. H. Yamani, **M. A. Gondal** (2013) Crystalline Nanostructured Cu Doped ZnO Thin Films Deposited at Room Temperature by Pulsed Laser Deposition Technique and Their Characterization, *Appl. Surface Science*,270,104-108 (2013).
125. S. Kumar, S. K.De, **M.A. Gondal** (2013) Heterogeneity of Laser Irradiated Films Of Polyvinyl Alcohol/Starch Blends: Effect of Glycerol Content, *Surface and Interface Analysis*, Vol 45, 1047-1051(2013).
126. A. A. Naqvi, Faris A. Al-Matouq, F. Z. Khiari, Khateeb-ur-Rehman, **M. A. Gondal**, A. A. Isab (2013), Nitrogen Detection in Bulk Samples Using a D-D Reaction-Based Portable Neutron Generator, *Journal of Spectroscopy*, Volume 2013, Article ID 486192, 7 pages
127. **M.A. Gondal**, T.F. Qahtan and M.A. Dastageer(2013) Synthesis of Cu/Cu₂O Nanoparticles by laser Ablation in ionized water and their annealing transformation into CuO nanoparticles *Journal Nanoscience and Nanotechnology* Vol. 13, Volume 13, Issue 8, 5759-5766(2013)
128. **M. A. Gondal**, X. Chang , W. E.I. Sha, Z. H. Yamani, Q. Zhou Enhanced photoactivity on Ag/Ag₃PO₄ composites by plasmonic effect, *J. Colloid. Interface and Science*, 392, 325-330 (2013).
129. Kai Shen,**M. A.Gondal** , Z. Li , Liye Li ,Q. Xu, Z. H. Yamani (2013) 450 nm visible light-induced photosensitized degradation of Rhodamine B molecules over BiOBr compound from aqueous solution, *Reaction Kinetics, Mechanisms and Catalysis* (2013) 109: 247–258.
130. L. Luo, K. Shen , Q. Xu, Qin Zhou, W. Wei, **M.A. Gondal** (2013) Preparation of multiferroic Co substituted BiFeO₃ with enhanced coercive force and its application in sorption removal of dye molecules from aqueous solution, *J. Alloys and Compounds*, Vol 558, 73-76 (2013).
131. **M. A. Gondal**, A. Khalil (2012), Effect of Ambient Conditions on Laser-Induced Breakdown Spectroscopy Performance, *Laser Physics* Vol. 22, No. 12, pp. 1771–1779 (2012).
132. **M. A. Gondal**, A. Khalil, N.Suleman (2012), High sensitive detection of NO using laser induced photo acoustic spectroscopy at 213 nm, *Applied Optics* **51**, issue 22, 5724-5734 (2012).

133. **M. A. Gondal**, M.A. Dastageer, Naqvi A. A., A. A. Isab, and Y. W. Maganda (2012), Detection of Toxic metals (Lead and Chromium) in the Talcum Powder using Laser Induced Breakdown Spectroscopy, *Applied Optics* , 51,7395-7401(2012).
134. **M. A. Gondal**, M. A. Dastageer, M. Maslehuddin, A.J. Al-Nehmi, O. S. B. Al-Amoudi (2012) Detection of sulfur in the reinforced concrete structures using a dual pulsed LIBS system, *Optics and Laser Technology* 44 (2012) 566–571.
135. **M. A. Gondal**, M. A. Dastageer (2012) Spectral red shift in the Ag²⁺ doped CdS quantum dots, *Appl. Phys. B* (2012) 106:419–424.
136. R. Al-Tuwirqi, N. Al-Suliman A. A. I. Khalil, **M. A. Gondal** (2012) New Observation of the Quintet States of CO Excited by Glow Discharge, *Molecular Physics*, **110** (23) pp. 2951 – 2956 (2012) .
137. A. A. Naqvi, Faris A. Al-Matouq, F. Z. Khiari, Khateeb-ur-Rehman, **M. A. Gondal**, A. A. Isab (2013), Optimization of a prompt gamma setup for analysis of environmental samples, *J. Radio anal Nucl. Chem. Journal of Radioanalytical and Nuclear Chemistry* , 296 , 215 – 221 (2013).
138. **M. A. Gondal**, M.A. Ali, M.A.Dastageer, X.Chang (2012), CO₂ conversion into methanol using granular silicon carbide (α6H-SiC): A comparative evaluation of 355 nm Laser and Xenon mercury broad band radiation sources, *Catalysis Letters* Volume 143, pp 108-117, 2013.
139. J. Pola, M. Urbanov, D. Pokorna´ S. Bakardjieva, J. Šubrt, Z. Bastl, **M. A. Gondal** and H. M. Masoudi(2012) IR laser photodeposition of a-Fe/Si films developing nanograins of ferrisilicate, iron disilicide and rare hexagonal iron upon annealing, *Dalton Trans.*, 2012, 41, 1727.
140. J. Zhang, **M. A. Gondal**, W. Wei , T. Zhang,Q. Xu , K. Shen (2012) Preparation of room temperature ferromagnetic BiFeO₃ and its application as an highly efficient magnetic separable adsorbent for removal of Rhodamine B from aqueous solution *J. Alloys and Compounds* Volume 530, 25 July 2012, Pages 107–110.
141. J. Zhang, X.chang, **M. A. Gondal**, W. Wei , T. Zhang,Q. Xu , K Shen (2012) Synthesis and photocatalytic activity of graphene/BiOBr composites under visible light, *Appl.Surface Science*, Vol 258, Iss 20, 7795-8322 (2012).
142. J. Pola, **M. A. Gondal**, M. Urbanova, D. Pokorna, H. M.Masoudi, S. Bakardjieva, Z. Bastl, J. Šubrt, M. N. Siddiqui (2012),Laser photodeposition of ambient and high-pressure magnetite nanograins in a-Fe/C/O composite: the high-pressure metal oxide polymorph surviving ambient conditions., *J. Photochem. & Photobiol. A*, Vol 243,33-40 (2012).
143. Naqvi A. A., M.S. Al-Anezi, Z. Kalakada, F. A. Al Matouq, M. Maslehuddin , **M. A. Gondal** , A. A. Isab, K. Rehman and M. Dastageer (2012), Response Tests of a LaCl₃:Ce Scintillation Detector With Low Energy Prompt Gamma Rays From Boron and Cadmium *Applied Radiation and Isotopes*, 70, Issue 5, May 2012, 882–887.
144. **M.A. Gondal**, Li, C., Chang, X., Sikong, L., Yamani, Z.H., Zhou, Q., Yang, F., Lin, Q.(2012) Facile preparation of magnetic C/TiO₂/Ni composites and their photocatalytic performance for removal of a dye from water under UV light irradiation, *J. Env. Science and Health A* 47, 570-576, 2012.
145. **M.A. Gondal**, Chang, X., Al-Saadi, A.A., Yamani, Z.H., Zhang, J., Ji, G.(2012) BiOCl-assisted photodegradation of Rhodamine B under white light and monochromatic green pulsed laser irradiation, *J. Env. Science and Health A*, **47** (8) pp. 1192 – 1200 (2012)
146. **M. A. Gondal**, M. A. Ali , X. F. Chang, K. Shen, Q. Y. XU , Z. H. Yamani (2012), Pulsed laser induced photocatalytic reduction of greenhouse gas CO₂ into methanol: A value-added hydrocarbon product over SiC, *J. Env. Science and Health A* 47(11):1571-6. (2012).
147. X. Chang, **M. A. Gondal**, A. A. Al-Saadi, H. Shen , M.A. Ali ,Qin Zhou , J. Zhang , Mengping Du , Y. Liu 1, G.Ji (2012) Photo- degradation of Rhodamine B over unexcited semiconductor compounds of BiOCl and BiOBr, *J. Colloid Interface and Science* 377, 290-298 (2012).
148. **M. A. Gondal**, M.A. Randhawa, A. J. Alzahrani ,M. N. Siddqui (2012) Morphology and antifungal effect of nano ZnO and nano Pd doped nano ZnO against Aspergillus and Candida, *J. Env. Science and Health* Volume 47, Issue 10, 1413-1418, 2012.
149. **M. A. Gondal**, T.A. Saleh, Q. A. Drmosh, (2012) Synthesis of Nickel oxide nanoparticles using pulsed laser ablation in liquids and their optical characterization, *Applied Surface Science* Vol 258, 6982-6986 2012.
150. T.A. Saleh, **M.A. Gondal**, Q. A. Drmosh, (2012), Optical Properties of Bismuth Oxide Nanoparticles Synthesized by Pulsed Laser Ablation Technique, *Nanomaterials by Laser Processing” Science of Advanced Materials*, Vol. 4, 507-510, 2012.

151. **M. A. Gondal**, M. A. Dastageer, M. Maslehuddin, A.J. Al-Nehmi, O. S. B. Al-Amoudi (2011), Detection of chloride in the reinforced concrete using dual pulsed LIBS system – A comparative study of atomic transition lines of Cl I at 594.85nm and 837.59 nm, Applied Optics Volume 50, Issue 20, 10 July 2011, Pages 3488-3496 .
152. Pola, J. Pokorná, D. , Maryško, M. , Bastl, Z. , Šubrt, J. , Bakardjieva, S., Bezdička, P. , **M.A. Gondal**, Masoudi, H.M.(2011) IR laser deposition: Co₂Sm₅ nanocrystals in amorphous Sm-Co phase and amorphous Sm-Co nanobodies in carbonaceous phase, J. Photochem & Photobiol. A, Vol 223, 25 (2011), Pages 132-139.
153. X. Liang, **M. A. Gondal**, X Chang, Z. H. Yamani, N. LI, H. LU G. JI Facile (2011), preparation of magnetic separable powdered-activated-carbon/Ni adsorbent and its application in removal of perfluorooctane sulfonate (PFOS) from aqueous solution, J. Env. Science and Health Part A. Volume 46, Pages 1482-1490, 2011.
154. M. Qamar, Z.H. Yamani, **M.A. Gondal**, K. Alhoshiani (2011) Synthesis and comparative photocatalytic activity of Pt/WO₃ and Au/WO₃ nanocomposites under sunlight-type excitation, Solid State Sciences, Volume 13, Issue 9, September 2011, Pages 1748-1754
155. M. Qamar, **M.A. Gondal**, Z.H. Yamani (2011) Synthesis of nanostructured NiO and its application in laser-induced photocatalytic reduction of Cr (VI) from water J. Mole. Catalysis A,343, 83-88, 2011.
156. A. Mekki, G. Khattak, **M.A. Gondal** (2011) Laser induced structural modification in Fe-Na-B glass samples investigated by advanced XPS technique, Int. Journal of Surface Science and Engineering Vol 5, Nos. 5/6, 2011,page 434-445.
157. M. H. Shwehdi, **M. A. Gondal**, Detecting impurities that lead to electrical cables outages using laser sensing, AR - CEIDP, art. no. 5724100.
158. **M. A. Gondal**, X. Chang, M. A.Ali, Z. H. Yamani, G. Ji (2011) Adsorption and degradation performance of Rhodamine B over BiOBr under 532nm pulsed laser exposure, Appl. Catalysis A 397 (2011), pp. 192-200.
159. M. N. Siddiqui, **M.A. Gondal** (2011), Laser Based Photo-Oxidative Degradation of Methyl Tertiary-Butyl Ether (MTBE) Using Zinc Oxide (ZnO) Catalyst, J. Env. Science and Health Part A, Vol46, 1154-1159.
160. A. Khalil, **M. A. Gondal** and M.A. Dastageer (2011), Augmented Photo Catalytic Activity Of Palladium Doped Nano ZnO in the Disinfection of Escherichia Coli Microorganism from Water. Appl. Catalysis A , Volume 402, Issue 1-2, 31 July 2011, Pages 162-167.
161. **M. A Gondal**, A. Bagabas, M. A. Dastageer (2011) Synthesis of w-CdS quantum dots and discovery of intense sub band emission owing to longitudinal optical phonons, Journal Nanoparticle Research Volume 13, Issue 9, September 2011, Pages 3835-3842.
162. A. Khalil, **M. A. Gondal** and N. Suleman(2011), Resonant Photoacoustic detection of Carbon Monoxide with UV laser at 213 nm, Appl. Phys. B Volume 103, Issue 2, May 2011, Pages 441-450.
163. Bagabas, A., **Gondal, M.**, Khalil, A., Dastageer, A., Yamani, Z., Ashameri, M (2010)., Laser-induced photocatalytic inactivation of coliform bacteria from water using pd-loaded nano-WO₃, Studies in Surface Science and Catalysis , 175, pp. 279 - 282 . 2010.
164. T. A. Saleh, **M. A. Gondal**, Q. A. Drmosh, Z.H. Yamani, A. Yamani(2011) Enhancement in Photocatalytic Activity for Acetaldehyde Removal by Embedding ZnO nano particles on MultiWall Carbon Nanotubes, Chem. Eng. Journal Chemical Engineering Journal, 166, 407-412 (2011).
Awarded as Top Cited paper by Elsevier
165. M. Qamar, **M. A. Gondal**, Z.H. Yamani (2011) Laser-induced efficient removal of Cr (VI) catalyzed by ZnO semiconductor, J. Hazardous Materials 187 (2011) 258–263
166. K. Hayat, **M. A. Gondal**, Mazen M.Khaled, Shakeel Ahmed, and Ahsan M.Shemsi (2011), Nano ZnO Synthesis by Modified Sol Gel Method and its Application in Heterogeneous Photo-Catalysis Removal of Phenol from Water, Appl. Catal. A 393, 2011, Pages 122-129 (2011). *Awarded as Top Cited paper by Elsevier*
167. **M. A. Gondal**, X. Chang, Z. H. Yamani, G. Yang and G. JI (2011), Photocatalytic removal of Sulforhodamine B from aqueous solution on GaN thin films under UV pulsed laser irradiation, J. Env. Science and Health Part A 2011 Mar;46(4):415-9.
168. **M. A. Gondal**, A. Khalil, M. A. Dastageer and Z.H. Yamani (2011), Parametric Optimization of nano-ZnO Photo Catalyst for effective disinfection of Escherichia coli micro organism in Water, J. Nanoparticle Research Vol 13, Issue 8, 2011, Pages 3423-3430

169. K. Hayat, **M. A. Gondal**, M. M. Khaled, Z. H. Yamani and S. Ahmed (2011), Laser induced Photocatalytic degradation of hazardous dye (Safranin-O) using self synthesized nanocrystalline WO_3 , *J. Hazardous Materials*, Volume 186, Issue 2-3, 28 February 2011, Pages 1226-1233.
170. **Gondal, M. A.**, Z. S. Seddigi, M. M. Nasr (2010), Spectroscopic Detection of Health Hazardous Contaminants in Lipstick using Laser Induced Breakdown Spectroscopy, *J. Hazardous Materials* 175, 726-732.
171. Tawfik A. Saleh, **M.A. Gondal**, Q.A. Drmosh (2010) Laser Induced Photocatalytic Activity of Locally Synthesized CNT/ZnO Nanocomposite for Removal of Cyanide from Water, *Nanotechnology* Volume 21, Issue 49, 10 2010, Article number 495705
172. **M. A. Gondal**, X. Chang, Z. H. Yamani, Pulsed laser -induced photocatalytic removal of Rhodamine 6G over BiOCl from aqueous solution, *Chemical Engineering Journal* 165, 250-257 (2010).
173. K. Hayat, **M. A. Gondal**, Mazen M. Khaled (2010), Effect of Operational Key Parameters on Photocatalytic Degradation of Phenol using Nano Nickel Oxide Synthesized by Sol Gel Method *J. Mole. Catalysis A* 336 (2011) 64–71.
174. **M.A. Gondal**, A. Dastageer, M. Maslehuddin, A.J. Alnehmi, O. S. B. AL-Amoudi, Sensitivity enhancement at 594.8 nm atomic transition of Cl I for chloride detection in the reinforced concrete using LIBS, *J. Env. Science and Health Part A, Part A*, Vol. 46, No.2 (2010).
175. **M. A. Gondal**, M. M. Nasr, M. M. Ahmed, Z.H. Yamani, M. S. AlSalhi (2010), Detection of Lead in Paint Samples Synthesized Locally Using Laser Induced Breakdown Spectroscopy, *J. Env. Science and Health Part A* Volume 46, Issue 1, January 2011, Pages 42-49
176. **Gondal, M. A.** M. N. Siddiqui, M. Nasr (2010) Detection of trace metals in asphaltene using advanced LIBS technique, *Energy & Fuel*, Volume 24, Issue 1, pages 1099-1105.
177. K. Hayat, **M.A. Gondal**, M. M. Khaled, S. Ahmed, Kinetic Study of Laser Induced Photocatalytic Degradation of Dye (Alizarin Yellow) from Waste Water Using Nanostructured ZnO (2010), *J. Env. Science and Health Part A*, Vol 45 (2010).1413-1420.
178. A. Fazal, S. Al-Fayez, L.H. Abdel-Rahman, Z. S. Seddigi, A. R. Al-Arfaj, B. El Ali, Mohammad A. Dastageer, **M. A. Gondal**, M. Fettouhi (2010) Mixed-ligand complexes of copper(I) with diimines and phosphines: Effective catalysts for the coupling of phenylacetylene with halobenzene *Polyhedron*, 28, 4072-4076.
179. G. Khattak, A. Mekki, **M.A. Gondal** (2010) Effect of laser irradiation on the structure and valence states of copper in Cu-Phosphate Glass by XPS studies, *Applied Surface Science*, Volume 256, 2010, 3630-3635
180. Q. A. Drmosh, **M.A. Gondal**, Z. H. Yamani and T.A. Saleh (2010) Spectroscopic Characterization Approach to Study Surfactants Effect On ZnO_2 Nanoparticles Synthesis by Laser Ablation Process, *Applied Surface Science* 256 (2010), pp. 4661-4666.
181. M. Qamar, **M.A. Gondal**, Z.H. Yamani (2010) Removal of Rhodamine 6G induced by laser and catalyzed by Pt/ WO_3 nanocomposite, *Catalysis Comm.* Volume 11, 2010, 768-772.
182. M. A. Randhawa, A. J. Al-Zahrani, **M. A. Gondal**, A. A. Bagabas(2010), Synthesis, characterization and antimicrobial activity of nano ZnO and Pd loaded nano ZnO against enteric pathogens, *Journal of Materials Science and Engineering*, Vol 4, No.5 (May, 2010).
183. **M. A. Gondal**, K. Hayat, M. M. Khalid, S. Ahmed (2010) Photocatalytic Removal of Hazardous Dye from Water using Nanostructured WO_3 , *International Journal of Nano Particles* Volume 4, Issue 1, January 2011, Pages 53-63
184. **M. A. Gondal**, Q. A. Drmosh, and T.A. Saleh (2010) Effect of post-annealing temperature on structural and optical properties of nano -ZnO synthesized from ZnO_2 by Laser Ablation Method, *Int. J. Nanoparticles*, Vol. 3, No. 3, (2010) 257-266.
185. **M. A. Gondal**, A. A. Bagabas, M. A. Dastageer, A. Khalil (2010) Synthesis, Characterization, and Antimicrobial Application of Nano-Palladium doped Nano- WO_3 *J. Molecular Catalysis A*, 323, 78-83 (2010).
186. N. Suleman, R. Al-Tuwirqi, A. A. I. Khalil, **M. A. Gondal** (2010) The RKR potential energy curves of the $A\ 1\Sigma^+$ State of Ca_2 , *Asian J. Spectroscopy* Vol,6 (2010)
187. **M.A. Gondal** and M. A. Dastageer (2010) Design, Fabrication, and Optimization of Photo Acoustic Gas Sensor for the Trace Level Detection of NO_2 in the Atmosphere *J. Env. Science and Health Part A* Vol 45, (2010). 1406-1412

188. **M.A. Gondal** Q. A. Drmosh, Z. H. Yamani and T.A. Saleh (2010) Preparation and Characterization of SnO₂ Nanoparticles Using High Power Pulsed Laser, Applied Surface Science, 256 (2010), pp. 7067-7070
189. M. Nasr, **M. A. Gondal**, Z. Seddighi (2011) Detection of Hazardous Pollutants in Chrome Tanned Leather Using Locally Developed Lased Induced Breakdown Spectrometer, Environmental Monitoring and Assessment Volume 175, Issue 1-4, April 2011, Pages 387-395
190. A. Bagabas, **M. A. Gondal**, A. Al-Muhanna, T. Alanazi, M. A. Dastageer and M. Ababtain (2009) Study of Laser Induced Blue Emission with Nanosecond Decay of Silicon Nanoparticles Synthesized by Chemical Etching Method, Nanotechnology 20 (2009) 355703.
191. A. A. I. Khalil, M. Richardson, L. Johnson, **M. A. Gondal** (2009) Titanium plasma spectroscopy studies under double pulse laser excitation, Laser Physics, Volume 19, 1981-1992.
192. **M. A. Gondal**, Q.A. Drmosh, Z. H. Yamani and M. Rashid (2009) Synthesis of Nanostructure ZnO and ZnO₂ by Laser Ablation Process Using Third Harmonic of Nd: YAG Laser, International Journal of Nano Particles Vol 2, 119-128.
193. M. Qamar, **M.A. Gondal**, Z.H. Yamani (2009) Synthesis of Highly Active Nanocrystalline WO₃ and its Application in Laser-induced Photocatalytic Removal of a dye from Water, Catalysis Communication, Vol 10, 1980-1984.
194. M. Qamar, **M.A. Gondal**, K. Hayat, Z.H. Yamani, K. Al-Hooshani (2009), Laser-induced removal of Dye Derivative Eosin Yellowish Catalyzed by n-type WO₃ Semiconductor Catalyst, J. Hazardous Materials, V 170, 584-589.
195. **Gondal, M. A.** T. Hussain, Z. H. Yamani and M.A. Baig (2009) Monitoring of Remediation Process of Chromium Contaminated Soil using Laser Induced Breakdown Spectroscopy, J. Hazardous Materials 163,1261-1271.
196. A. A. I. Khalil, **M. A. Gondal** (2009), Development of silver ion source using nanosecond pulses of Nd:YAG laser at different wavelengths, Nuclear Instruments and Methods B 267, 3356-3363.
197. M. N. Siddiqui, **M. A. Gondal**, M. Nasr (2009) Determination of Trace Metals Using Laser Induced Breakdown Spectroscopy in Insoluble Organic Materials Obtained from Pyrolysis of Plastics Waste, Bulletin of Environmental Contamination & Toxicology, Vol. 83 Page 141-145.
198. **M. A. Gondal**, T. Hussain, Z. H. Yamani and O.S.B. Al-Amoudi (2009) Spectral Determination of Chloride Content in Different Types of Cement Using LIBS, Spectroscopy Letters, Vol 42, 171-177.
199. **M. A. Gondal**, M.N. Sayeed, Z.H. Yamani and A. Arfaj (2009) Efficient Removal of Phenol from Water Using Fe₂O₃ Semiconductor Catalyst Under UV Laser Irradiation, J. Environment Science and Health Part A Vol. A44, No.5,515-521.
200. **M. A. Gondal**, Z. Ahmad, A Nasr, Z. H. Yamani, (2009) Determination of Trace Elements in Volcanic Rock Samples Collected From Cenozoic Lava Eruption Sites Using LIBS, J. Environment Science and Health Part A Vol. A44, No.5. 528-535.
201. **M.A. Gondal**, Q.A. Drmosh, Z. H. Yamani and T.A. Saleh (2009) Synthesis of ZnO₂ nanoparticles by laser ablation in liquid and their annealing transformation into ZnO nanoparticles, Applied Surface Science 256, 298-304.
- (listed in Top 25 Hot Papers as cited by Science Direct)
202. **M. A. Gondal**, A. Dastageer, Z. H. Yamani (2009) Laser Induced Photoacoustic Detection of Ozone at 266 nm Using Resonant Cells of Different Configuration, J. Environment Science and Health Part A Vol.44, 1457 (2009).
203. **Gondal, M. A.**, A. Dastageer (2009) Relative Intensity Distribution of the Stimulated Raman Scattered (SRS) Lines of Methane and Hydrogen Excited with 266 nm UV Radiation, Applied Mathematics & Information Sciences, Vol 3 (2009), 355-365.
204. **M. A. Gondal**, A. Dastageer, A Khalil (2009) Synthesis of Nano-WO₃ and its catalytic activity for enhanced antimicrobial process for water purification using laser induced photo-catalysis, Catalysis Communication 11, 214-219.
205. H Al-Qahtani, BS Yilbas, S El-Ferik, T Hussain, **M. A. Gondal**, J.S. Hwang, GA (2008) Entropy generation rate during laser pulse heating: Effect of laser pulse, Optics and Lasers in Engineering 46 (1), 27-33 (2008).
206. **M. A. Gondal**, M.N. Sayeed (2008) Laser Enhanced Photocatalytic Degradation of Organic Pollutants from Water Using ZnO Semiconductor Catalyst J. Environment Science and Health Part A Vol 43 No 1 (2008)70-77.

207. **M. A. Gondal**, Z. H. Yamani (2008) High Sensitive Electronically Modulated Photoacoustic Spectrometer for Ozone Detection, *Applied Optics*, Vol 46, 7083-7090.
208. T. Hussain, **M. A. Gondal** (2008), Monitoring and Assessment of Toxic Metals in gulf war oil spill contaminated soil using Laser- induced Breakdown Spectroscopy, *Environmental Monitoring and Assessment* 136 (1-3): 391-399, 2008.
209. **M. A. Gondal**, M.N. Sayeed, Z. Seddighi (2008), Laser Enhanced Photo-Catalytic Removal Of Phenol From Water Using P-Type NiO Semiconductor Catalyst , *J. Hazard. Materials*, Vol 155, 83-89.
210. **M. A. Gondal**, A. Dastageer (2008) Raman Scattering in H2 by Laser induced H- ϵ Balmer Line Seeding: Amplification Coupled Laser Wavelength Shifter, *Laser Physics*, 18, Issue 11, 2008 1332-1336.
211. M. A. Gondal, Hussain, T., Yamani, Z. H. (2008) Optimization of the LIBS Parameters for Detection of Trace Metals in Petroleum Products. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (2008), 30(5), 441-451.
212. M. N. Siddiqui, M. A. Gondal, H.H. Redwi (2008), Identification of different type of Plastics Waste, *J. Environment Science and Health Part A* Vol. A43, No.11 (2008)1303-1310.
213. **M. A. Gondal**, A. Khalil (2008) Rapid Disinfection Of E-Coliforms Contaminated Water Using WO₃ Semiconductor Catalyst By Laser Induced Photo-Catalytic Process, *J. Environment Science and Health Part A* Vol. 43, No.5 (2008) 488-494.
214. **M. A. Gondal**, A. Dastageer, (2008) High Sensitive Detection of Hazardous SO₂ using 266 nm UV Laser, *J. Environment Science and Health Part A* Vol. A43, No.10, 1126 - 1131 (2008).
215. T. Hussain, **M. A. Gondal** (2008), Detection of toxic metals in Waste water from Dairy Product Plant using Laser Induced Breakdown Spectroscopy, *Bulletin Of Environmental Contamination & Toxicology*, Vol. 80, Number 6 / June, 2008, 561-565.
216. **M. A. Gondal**, A. Dastageer (2008) Investigation of Amplification Process on the Third Stoke Line of H₂ under UV Laser Irradiation, *Applied Optics*, Vol. 47 Issue 33, pp. 6243-6250 (2008).
217. M. H. Shwehdi, **M. A. Gondal** (2008) Outages investigation and characterization of saudi electrical cables using Laser induced breakdown spectroscopy, *Ann. Rept., CEIDP* pages 45-48.
218. **M. A. Gondal**, H. Masoudi , J. Pola (2008) Laser photo-oxidative degradation of 4,6-dimethyldibenzothiophene, *Chemosphere* 71 (2008) 1765–1768.
219. **M. A. Gondal**, M. N. Siddiqui (2007) Identification of Different Kinds of Plastics Using Laser Induced Breakdown Spectroscopy for Waste Management, *J. Environment Science and Health Part A* ,Vol 42, No13 (2007)1989-1997.
220. **M. A. Gondal**, T. Hussain, Z. H. Yamani and Z. Ahmed (2007) Determination of Toxic Metals in Petroleum, Cultivated Land and Ore Samples Using Laser-Induced Breakdown Spectroscopy, *Bulletin Of Environmental Contamination & Toxicology*, 78 (3-4), 270-274. (2007)
221. T. Hussain, **M. A. Gondal** and Z. H. Yamani (2007), Measurement of Nutrients in Green House Soil with Laser Induced Breakdown Spectroscopy, *Environmental Monitoring and Assessment* Vol 124, 131-139.
222. Gondal, M. A., M.N. Sayeed, A Arfaj (2007) Activity Comparison of Fe₂O₃, NiO, WO₃ and TiO₂ Semiconductor Catalysts in Phenol Degradation by Laser Enhanced Photo-Catalytic Process, *Chem. Phys. Letters*, Vol 445, 325-330.
223. **M. A. Gondal**, A. Dastageer, I.A. Bakhtiari (2007) Laser Based Sensor For Detection Of Hazardous Gases In The Air Using Waveguide CO₂ Laser, *J. Environment Science and Health Part A* Vol. 42, No. 7, 871-878 (2007).
224. **M. A. Gondal** ,T. Hussain, Z. Ahmad, A. Bakry, (2007) Detection of Contaminants in Ore Samples Using Laser Induced Break Down Spectroscopy, *J. Environment Science and Health Part A* Vol. 42, No. 7 , 879-887 (2007).
225. **M. A. Gondal**, T. Hussain, Z. H. Yamani, M. A. Baig (2007), The Role of Various Binding Materials for Trace Elemental Analysis of Powder Samples Using Laser Induced Breakdown Spectroscopy, *Talanta* ,Vol 72, 642-649(2007).
226. **M. A. Gondal**, T. Hussain (2007) Determination of Poisonous Metals in Waste Water collected from Paint Manufacturing Plant Using Laser- Induced Breakdown Spectroscopy *TALANTA* Vol 71, 73-80.
(Top 25 Hot Papers as cited by Science Direct)
227. **M. A. Gondal**, T. Hussain, Z. H. Yamani and A.H. Bakry (2007), Study of hazardous metals in Iron Slag Waste Using Laser Induced Breakdown Spectroscopy, *J. Environment Science and Health* Vol. 42, No. 6, 767-775 (2007)..
228. B.S. Yilbas, A.F.M. Arif and **M. A. Gondal** (2006), Plastic Deformation of Steel Surface due to Laser Shock Processing, *Journal of Engineering Manufacture*, Volume 220, Number 6, 2006, pp. 857-867(11).

229. **M. A. Gondal**, and Z. Seddighi (2005) Laser Induced Photo-Catalytic Removal of Phenol Using n-type WO₃ Semiconductor Catalyst, Chem. Physics Letters, Vol 417, 124.
230. **M. A. Gondal**, T. Hussain, Z. H. Yamani, M.A. Baig (2006), Detection of Heavy Metals in Arabian Crude Oil Residue using Laser Induced Breakdown Spectroscopy, TALANTA, Vol 69, 1072 .
(Top 25 Hot Papers as cited by Science Direct)
231. A. Hameed, **M. A. Gondal**, Z. H. Yamani and A.H. Yahya (2005), Significance of pH Measurements in Photocatalytic Splitting of Water by 355 nm UV Laser, J. Molecular Catalysis A, V 227, 241.
232. A. Hameed and **M. A. Gondal** (2005), Production of Hydrogen-rich Syngas using p-type NiO catalyst: A Laser-based Photocatalytic Approach, J. Molecular Catalysis A Vol 233, 35. (Top 25 Hot Papers as cited by Science Direct)
233. **M. A. Gondal**, A. Hameed, and Z. H. Yamani (2005), Laser photocatalytic splitting of water over WO₃ catalyst, Energy Sources, Vol 27, 1151-1165.
234. B.S. Yilbas, A.F. M. Arif and **M. A. Gondal** (2005), HVOF Coating and Laser Treatment: Three Point Bending Test, J. Materials Processing Technology Volumes 164-165, 954.
235. Yilbas B.S., Arif A.F.M., S.Z. Shuja, **M. A. Gondal** and J. Shirokhof (2004), Investigation into laser shock processing, ASM J. Materials Engineering and Performance Vol 13, 47-54.
236. **M. A. Gondal**, A. Hameed, Z.H. Yamani, and A. Al-Suwaiyan (2004), Production of Hydrogen and Oxygen by Water Splitting Using Laser Photo-catalysis, over Fe₂O₃, Applied Catalysis A, Vol 268, 159.
a. (Top 25 Hot Papers as cited by Science Direct)
237. **M. A. Gondal**, A. Hameed, Z.H. Yamani and A. Al-Suwaiyan (2004), Laser Induced Photocatalytic Oxidation of Water: Activity Comparison of α -Fe₂O₃, WO₃, TiO₂ and NiO Catalysts, Chemical Physics Letters, Vol 385, 111.
238. H. Yahaya, **M. A. Gondal**, A. Hameed (2004), Selective Laser enhanced Photocatalytic Reduction of CO₂ into Methanol, Chem. Phys. Letts V 400, 206.
239. A. Hameed and **M. A. Gondal** (2004), Laser Induced Photocatalytic Generation of Hydrogen and Oxygen Over NiO and TiO₂, J. Molecular Catalysis, Vol 219, 109.
240. A. Hameed, **M. A. Gondal** and Z. H. Yamani (2004), Effect of Transition Metal Doping on Photocatalytic Activity of WO₃ under Laser Illumination: Role of 3d-orbitals, Catalysis Communication V5,715.
241. Yilbas B.S., **M. A. Gondal**, Arif A.F.M., S.Z. Shuja (2004), Laser shock processing of Ti₆Al₄V_a, PIME J. Engineering Manufacturing V 218, 473-482.
242. **M. A. Gondal**, A. Hameed, Z. H. Yamani (2004), Hydrogen Generation by Laser Transformation of Methanol using n-type WO₃ Semiconductor Catalyst, J. Molecular Catalysis A, V222, 259.
243. **M. A. Gondal**, A. Hameed, Z. H. Yamani and A. Arfaj (2004) Photocatalytic Transformation of Methane into Methanol under UV Laser Irradiation over WO₃, TiO₂ and NiO Catalysts, Chem. Phys. Letters Vol 392, 377.
244. **M. A. Gondal**, M. H. Shwehdi and A. Dastageer (2004), Photoacoustic Spectrometry For Trace Gas Analysis and Leak Detection Using Different Cell Geometries, TALANTA Vol 62, 131.
245. B. S. Yilbas, S. Z. Shuja, A. Arif and **M. A. Gondal** (2003), Laser shock processing of steel, J. Material Processing Technology, Vol 135, 6-17.
246. **M. A. Gondal**, A. Hameed and A. Al-Suwaiyan (2003), Photocatalytic conversion of methane into methanol using visible laser, Applied Catalysis Vol 243, pp 165 – 174.
247. **M. A. Gondal**, A. Dastgeer, Zain. H. Yamani, M. A. Ali and A. Arfaj (2003), Laser induced fluorescence monitoring of higher alkanes production from pure methane using laser-induced non-oxidative process, TALANTA Vol 59, 295.
248. **M. A. Gondal**, Zain. H. Yamani, A. Dastgeer, M. A. Ali and A. Arfaj (2003), Photo-conversion of methane into higher hydrocarbons using 355 nm laser radiation, Spectroscopy Letters, Vol 36, 313.
249. **M. A. Gondal**, A. Dastgeer, Zain. H. Yamani, and A. Arfaj (2003) Investigation of Stimulated Raman Scattering of ν_1 and ν_2 Fundamental and Overtone Modes Of CH₄, Chemical Physics Letters, Vol 377, 249.
250. **M. A. Gondal**, M. H. Shwehdi and M. A. Baig, (2002), Laser sensor for detection of leaks in high power insulated switch gear systems, IEEE Transactions on Dielectrics and Electrical Insulations, Vol 9, 421-427.

251. **M. A. Gondal**, J. Mastromarino and U.K. A. Klein (2002), Laser Doppler velocimeter for remote measurements of pollutant water and aerosols discharges, *Optics and Lasers in Engineering* 2002 , 38 (6) 589-600.
252. **M. A. Gondal**, J. Mastromarino and U.K. A. Klein (2002), High resolution Doppler LIDAR based on actively stabilized ring dye laser, ed. J. A. Seidel, *Spectral Line Shapes*, (American Institute of Physics Press, New York) Vol.11, pp. 467-470
253. M. H. Shwehdi , **M. A. Gondal** (2001) A laser Photoacoustic system for detection of SF₆ in gas insulated systems, *Ann. Rept.*, CEIDP pages 104-109.
254. **M. A. Gondal** and J. Mastromarino (2001). Pulsed laser photoacoustic detection of SO₂ near 225.7 nm, *Applied Optics*, Vol. 40, 2010.
255. **M. A. Gondal**, A. Dastgeer, Zain. H. Yamani, M. A. Ali and A. Arfaj (2001), 355-nm Photodissociation of CH₄ and Production of Hydrogen, *OSA Technical Digest Series*, Vol 56, pp. 462-464.
256. B. S. Yilbas, M. Khaled, **M. A. Gondal** (2001), Electrochemical response of laser surface melted inconel 617 alloy, *Optics and Lasers in Engineering*, Vol. 36, 269
257. Khan M. A., **M. A. Gondal**, E. E. Khawaja (2000), Gas pressure sensor based on ZrO₂ thin films, *International Journal of Electronics*, Vol, 87, 227.
258. B. S. Yilbas, M. Khaled, **M. A. Gondal**, Qurfelli, Z. Khan, A. Qutub and B. El-Ali (2000), Nano-second pulse laser treatment of incoloy 800 Ht alloy-corrosion properties, *Optics and Lasers in Engineering*, Vol 32, 157.
259. **M. A. Gondal** and J. Mastromarino (2000), LIDAR system for environmental studies, *TALANTA*, Vol. 53, 147.
260. **M. A. Gondal**, S. M. A. Durrani and E. E. Khawaja, (1999), Laser pulse detector based on Sn-doped indium oxide films, *European J. Phys*, AP 8, 3
261. **M. A. Gondal**, I. A. Bakhtiari and S. M. A Durrani (1998). Spectroscopy of trace gases using a pulsed optoacoustic technique, *J. of Analytical At. Spectrometry* 13, 495
262. **M. A. Gondal**, M. A. Khan and M. H. Rais. (1998), Pulsed resonant optogalvanic spectroscopy of doubly excited levels of calcium, *Asian Journal of Spectroscopy* 2, 84.
263. **M. A. Gondal**, Khan and M.H. Rais. (1998), Observation of Ca²⁺ $a^3\Sigma - X^1\Sigma_g$ system, *II Nuovo Cimento*, 20,723. Gondal, M. A. (1996), Remote monitoring of trace gases using a CO₂ - laser photoacoustic system. *OSA (Optical Society of America) Technical Digest Series*, Vol 10, 244.
264. Khan, M.A., M. R. Qureshi and **M. A. Gondal** (1997), Ar-supported atomic population transfer from the 3d4p ¹D₂ to nearby states of Ca, *Chemical Physics Lett.* 264, 273.
265. **M. A. Gondal** (1997), Laser photoacoustic spectrometer for remote monitoring of atmospheric pollutants, *Applied Optics*, 36, No 6, 3195.
266. **M. A. Gondal**, I. A. Bakhtiari and S. M. A. Durrani (1997), Pulsed IR spectroscopy of combination band of NO₂, *Asian Journal of Spectroscopy*, 1, 201.
267. Khan, M.A., **M. A. Gondal** and M.H. Rais (1996), Laser gain on 4p3d 3F - 4s3d 3D transition in calcium. *Optics Commun.* 124, 38.
268. Khan, M.A., **M. A. Gondal** and M. H. Rais (1995), Large scale collisional energy transfer in laser-pumped metastable Ca atoms: Excitation of resonant states of CaII. *Appl. Phys.* B60, 391.
269. **M.A. Gondal**, M.A. Khan and M.H. Rais. (1995). Laser enhanced ionization studies of the blue satellite band in the Ca-Ar system associated with 4s2 1So - 4s3d 1D₂ transition of calcium. *II Nuovo Cimento*, 17D, 9.
270. Khan, M.A., **M. A. Gondal** and M.H. Rais (1995), Role of some selected intermediate states of Ca I in the collisional excitation of 4p 2p states of Ca II in a laser-pumped Ca vapor. *J. Phys. B: Atomic, Molecular and Optical Physics*, 28, 845.
271. **M. A. Gondal** M.A. Khan and M.H. Rais (1995), Investigation of collision induced line shape of a satellite associated with 4s2 1So - 4s3d 1D₂ transition of calcium. *Spectral Line Shapes*, AIP Pr. Vol.8, 229.
272. Khan, M.A., **M. A. Gondal** and M.H. Rais (1995), Role of metastable states in circumventing laser pulse jitter in multistep excitation experiments. *Optics and Laser Technology*, 27, 379.
273. **M. A. Gondal**, M.A. Khan and M.H. Rais (1995), A low current discharge source for calcium ions. *Plasma Sources Science and Technology*. 4, 137.
274. **M. A. Gondal**, Khan and M.H. Rais (1995), Emission spectra of calcium dimer: The A1Πu - X1Σg system. *Chem. Phys. Lett.* 243, 94.

275. Khan. M.A , **M. A. Gondal** and M.H. Rais (1994), Collisional excitation of Ca⁺ following pulsed-laser pumping of 4s2 1So - 4s4p 3P1 transition of Ca. IEEE Technical Digest, 265.
276. Khan. M.A., **M. A. Gondal** and M.H. Rais (1994), Collisional recycling of excited atomic populations in Ca in a thermionic diode following pulsed-laser excitation of a meta-stable state. J. Phys. B: Atomic, Molecular and Optical Physics. 27, 2889.
277. Khan, M.A., **M. A. Gondal** and M.H. Rais (1993), Optogalvanic spectra of calcium in the 6090-6760 region. Applied Phys. B. 57, 123.
278. **M. A. Gondal** and H.A. Iddressi (1992), Detection of new diffuse band around 599.2nm in single photon excitation of K2 dimer Rydberg states. Optics Commun. 94, 215.
279. **M. A. Gondal** S. Shahdin, A.A. Shaban and M.S. Omar (1991), First observation of collisionally induced diffuse band of Li2 around 452 nm. Optics Commun. 86, 128.
280. Shahdin, S., **M. A. Gondal**, S.M. Sharada and M.A. Magheder (1991), Gain observation on a new UV band around 366.5nm in excitation of molecular sodium. Chem.Phys. Lett., 180, 68.
281. Shahdin, S., **M. A. Gondal** and S. M. Sharada (1989) Observation of UV and violet diffuse bands of sodium dimer excited by XeF (351nm) excimer laser. Optics, Commun. 71, 65.
282. **M. A. Gondal**, W. Rohrbeck, W. Urban, R. Blanckart and J.M. Brown. (1983) Vibration-rotation transitions in the CF radical studied by laser magnetic resonance spectroscopy at 7.8 μm. J. Molecular Spectroscopy, 100, 290.
283. Rohrbeck, W., A. Hinz, P. Nelle, **M. A. Gondal** and W. Urban (1983) A broad band mid-infrared magnetic resonance spectrometer for spectral range of 1200 - 2000 wave numbers. Appl. Phys. B31, 139.

Conference Publications/presentations

284. N. Sharma, Y. Khajuria, J. Sharma, **M. A. Gondal**, V. Kumar, Y. Dwivedi, and Vivek K. Singh (2018) Spectroscopic Analysis of Rhizomes of Black Turmeric (*Curcuma caesia*), AIP Conference Proceedings 2006, 030036 (2018).
285. S.M. Altanany, **MA Gondal**, U Baig (2018) Synthesis and characterization of CuO/WO₃ nanocomposite using hybrid method: Simple precipitation and pulsed laser ablation in liquids technique, AIP Conference Proceedings 1976 (1), 020014
286. **M.A. Gondal**, R. A. Moqbel, T. F. Qahtan , M.A. Dastageer (2018) Photocatalytic application of CdS nanoparticles and CdS/RGO hybrid composite synthesized by pulsed laser ablation method (PLAL) American Institute of Physics (AIP) AIP Conference Proceedings 1976 (1), 020015
287. Abul Lais, **M.A. Gondal**, F.F. Al-Adel (2018) CO₂ photocatalytic reduction to fuels: Enhanced methanol selectivity by loading Ag on NaNbO₃, Sixth American Institute of Physics (AIP) Conference Proceedings 1976 (1), 020013
288. Umair Baig, **M.A. Gondal** (2018) Facile synthesis, characterization, optical and isothermal studies on electrically conductive polypyrrole-titanium dioxide nanocomposite, American Institute of Physics (AIP) AIP Conference Proceedings 1976 (1), 020012.
289. M.M Nasr, **MA Gondal**, MM Ahmed, MM Yousif, NA Al-Muslet (2018) Direct spectral analysis of different gum Arabic samples using laser induced breakdown spectroscopy, AIP Conference Proceedings 1976 (1), 020025.
290. **M.A. Gondal**, U Baig, MA Dastageer, M Sarwar (2017), Determination of elemental composition of coffee using UV-pulsed laser induced breakdown spectroscopy, AIP Conference Proceedings 1742 (1), 030007.
291. **M.A. Gondal (2018- invited talk)** Noninvasive and cost effective method for treatment of HeLa Cancer Cells Using Facile Synthesized Pure and Ag Loaded WO₃ Nanoparticles, MIT Hacking medicine in Saudi Arabia, Riyadh (22-24 December, 2018).
292. **M. A. Gondal** and A. M. Ilyas (2018) Synthesis of Quaternary (ZnO/TiO₂/CdS/SiC) Nano-composites Using Advanced Pulsed Laser Ablation Technique, International Conferenvce on New Vision in Clay Science (11-14 June, 2018) Urbana Champaign.
293. T Hussain, **M. A. Gondal**, M Shamraiz (2017), Determination of plasma temperature and electron density of iron in iron slag samples using laser induced breakdown spectroscopy, IOP Conference Series: Materials Science and Engineering 146 (1), 01, 2017.

294. **M.A. Gondal**, Synthesis of novel nano-materials using pulsed laser ablation technique for dye sensitized solar cells, waste water treatment and oil water separation NOOR 3rd International Conference on Applied Materials and Nanodevices, 14-16 November (2017), Islamabad, Pakistan.
295. **M. A. Gondal (invited talk)** Industrial Applications of Nanomaterials: For Oil production, solar energy harvesting, conversion of CO₂ into value added fuels and water purification, International Symposium on Nano education and Applications, COMSTECH, Islamabad (12-15 December, 2016).
296. **M.A.Gondal (invited talk)**, Synthesis of nanocomposites and their application in energy harvesting, waste water treatment and oil water separation, NOOR 2nd International Symposium on Applied Materials and Nanodevices, National Institute of Laser and Optonics, Islamabad (14-16 November, 2016).
297. **M. A. Gondal**, M.A. Dastageer (**invited talk**), Synthesis and Characterization of High Purity Nano Engineered Metal Oxide Composites Using Advanced Pulsed Laser Ablation in Liquids and Their Applications, 4th Saudi International Nano Conference, Dhahran (25-26th October, 2016).
298. **M. A. Gondal**, M. A. Suliman, M. A. Dastageer, Gaik-Khuan Chuah, C. Basheer, Dan Yang, A. Suwaiyan, Synthesis of Visible Light Active Mesoporous Ag-WO₃/SBA-15 Nano Composite Catalyst Based on Surface Plasmon Resonance Enhanced Process, 4th Saudi International Nano Conference, Dhahran (25-26th October, 2016).
299. **Abul Lais, M. A. Gondal**, M. A. Dastageer, Synthesis of Nano engineered photo-catalysts and their novel application in CO₂ conversion into high value hydrocarbons like Methanol, 4th Saudi International Nano Technology Conference, Dhahran (25-26th October, 2016)
300. **M. A. Gondal**, R. Al-Tuwirqi, A. A. I. Khalil, Analysis Of Quartet And Doublet States Of No Molecule Excited By Glow Discharge, International Symposium on Molecular Spectroscopy, 71st Meeting - June 20-24, 2016 - Champaign-Urbana, Illinois, USA.
301. **M.A. Gondal**, M.A. Dastageer, Umair Baig and Mohsin Sarwar (December 2016) Determination of Elemental Composition of Coffee using UV-pulsed laser induced breakdown spectroscopy, American Institute of Physics (AIP) Proceedings, 2016.
302. **M. A. Gondal**, Photo-Catalytic Reduction of CO₂ Into Methanol Using Self Synthesized Metal Oxide Nano-catalysts, 6th Saudi Arabian Combustion Section of Combustion Institute, Annual Meeting Saudi Aramco Technical Exchange Center, Dhahran, Kingdom of Saudi Arabia (May 1 – 2, 2016).
303. **M. A. Gondal (invited talk)** Synthesis of Colloidal Nanocrystal Based Nanocomposites Semiconductors for Photonic Applications Using Advanced Pulsed Laser Ablation in Liquids Technique, Seventh International Conference on Optical, Optoelectronic Photonic Materials and Applications 2016, Polytechnique Montreal, Canada.
304. **M. A. Gondal (invited talk)**, Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts, National Scientific Conference on “The use of Nanotechnology in Water Treatment” King AbdulAziz City For Science and Technology (KACST), Riyadh (17th April, 2016)
305. **M.A. Gondal**, Y. Habibullah, U. Baig, L. Oloore, Laser induced Breakdown spectroscopy of various Tea Brands, Fifth Saudi International Meeting on Frontiers of Physics -SIMFP 2016 (16-18 February) Jizan.
306. G. Kwon, D. Panchanathanl, **M. A. Gondal**, G. H. McKinley, K. K. Varanasi Visible-light-responsive TiO₂ surfaces for efficient separation of brine-oil mixtures, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
307. T.F. Qahtana, **M.A. Gondal**, U. Baig, M.A. Dastageer, L. Oloore
308. Facile Fabrication of Candle Soot Based Super-Hydrophobic Surface, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
309. **M.A. Gondal**, Fabrication of Robust Super-Hydrophobic/hydrophilic Surfaces Using Pressurized Spray Gun and Layer By Layer (LBL) Coatings and their Applications, invited talk, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
310. **M.A. Gondal**, M.S. Sadullah, Tala F. Qahtan, M.A. Dastageer, Umair Baig, G. H. McKinley, Oil-Water Separation Using Nano-Structured Semiconducting Metal Oxide Coated Surfaces, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
311. **M.A. Gondal**, Y.B. Habibullah, Umair Baig, L.E. Oloore; Spectro-chemical Analysis of various Tea brands using pulsed UV Laser-induced Breakdown Spectroscopy, Fifth Saudi International Meeting on Frontiers of Physics, 16-18 February, 2016, Jazan, Saudi Arabia.

312. Panchanathan D., Kwon G., **Gondal M. A.**, Qahtan. T.F., Varanasi K., McKinley G. H. In-situ self-cleaning wetting kinetics on immersed nanoporous titania surfaces under UV irradiation, 89th ACS Colloid and Surface Science Symposium, Carnegie Mellon University from (June 15-17, 2015).
313. G. Kwon, D.Panchanathan, **M.A. Gondal**, Gareth H. McKinley and Kripa K. Varanasi, Visible Light-Responsive Materials for Separation of Oil-Water Mixtures, 2015 AIChE Annual Meeting Salt Lake City UT, USA (Nov 8-13, 2015).
314. **M.A. Gondal**(invited talk), Synthesis and Photoluminescence Studies of Quantum Dots For Photonic Applications Using Pulsed Laser Ablation in Liquids, invited talk, 17th Photonics North, Ottawa (9-11th June 2015).
315. **M.A. Gondal**, M. Shemis, A.A. Khalil, Gallbladder Stones Analysis using pulsed UV Laser Induced Breakdown Spectroscopy, 2nd International Conference on Optoelectronics and Image Processing (ICOIP 2015)
316. **M.A. Gondal**, A. M. Ilyas, T.A. Fasasi, M.A. Dastageer, T. F. Qahtan (2015) Synthesis of Ag-ZnO Core-Shell Composite Structures Using Pulsed Laser Ablation in Liquids (PLAL) for Visible Light Applications, Interantional Conference on Atomic, Molecular and Optical Physics (AMOP), Al-Jouf (31st march - 2nd April, 2015).
317. **M.A. Gondal**, T.A. Fasasi, A. M. Ilyas, M.A. Dastageer, T. F. Qahtan (2015) Synthesis and Characterization of Phase Transition of Al₂O₃ Nanoparticles Via Pulsed Laser Ablation in Liquids, Interantional Conference on Atomic, Molecular and Optical Physics (AMOP), Al-Jouf (31st march - 2nd April, 2015).
318. S. G. Rao, **M. A. Gondal**, M. A. Dastageer, Z. H. Yamman "Morphology and optical properties of organic/inorganic hybrid thin films" 214th, ACS National Meeting & Exhibition, Dallas Texas-USA (2014).
319. **M.A. Gondal**, An Overview of Dye Sensitized Solar Cells and their Energy Harvesting Applications, 3rd International Conference on Nanotechnology/ Nanophotonics, King Abdullah City for Science and Technology, Riyadh (1st -3rd December, 2014).
320. **M.A. Gondal**, Physics of Self-Cleaning Surfaces (Coatings & Textures) and Their Novel Applications, FSIMFP2015 — Fourth Saudi International Meeting on Frontiers of Physics (17-19 Feb 2015).
321. M. A. Shemis, **M. A. Gondal**, E. Alkhazraji, M. Najmi, M. Abalkhail, I. Khan, T. B. Susilo, S. G. Rashid, M. Alsunaidi, Synthesis and Photoluminescence of Metal Coated ZnO Nanoparticles, IEEE proceedings, 2014, High Capacity Optical Networks and Emerging/Enabling Technologies, HONET-CNS 2014, 2014.
322. **M.A. Gondal**, Shan Shi, Kai Shen, Qingyu Xu, Xiaofeng Chang Preparation of G-C₃N₄/BiOCl_xBr_{1-x} Hybrid Photo-Catalysts and Enhanced Light-Harvesting Capability For Waste Water Treatment, 3rd International Laboratory Technology Conference & Exhibition (LAB-TECH 2014) Bahrain (28-30 Oct, 2014).
323. M. A. Shemis, **M. A. Gondal**, A. A. I. Khalil, Development of Laser Induced Breakdown Spectrometer for Detection of Carcinogenic Metals in Gall Bladder Stones, IEEE proceedings, 2014, High Capacity Optical Networks and Emerging/Enabling Technologies, HONET-CNS 2014, 2014.
324. **M.A. Gondal** and A.H.Y. Hindi (2014), Synthesis and Characterization Of CuO/ Bi₂O₃ Composite Thin Films Using Pulsed Laser Deposition (Pld) Technique, International Conference on "Oxide Thin Films for Advanced Energy Applications", Bloomingdale, Illinois (13 - 16 July 2014) USA.
325. **M.A. Gondal**, T. F. Qahtan, M. A. Dastageer (2014) Synthesis of High Purity CdSe Quantum Dots using Nanosecond Pulsed Laser Ablation in Liquids, Gordon Research Conference on Noble Metal Nanoparticles Synthesis Characterization and Applications, South Hadley (15-20 June 2014) Massachusetts, USA.
326. **M.A. Gondal**, M.S. Sadullah, G.H. McKinley, K.K. Varanasi, D.Panchanathan Photo-induced In Situ Switching of Surface Wettability of Titania Films Under Air and Oil Environment, IEEE proceedings, 2013, 10th International Conference on High Capacity Optical Networks and Enabling Technologies, HONET-CNS 2013, Article number 6729775, Pages 151-154
327. Talal F. Qahtan, M.A. Gondal, M. A. Dastageer, Z. H. Yamani and D. H. Anjum Preparation of CdSe Quantum Dots using nanosecond Laser, 3rd Saudi International Meeting on Frontiers of Physics Jazan, February 18th-20th, 2014.
328. **M. A. Gondal**, A.M. Ilyas, T. F. Qahtan, Synthesis of ZnO-TiO₂ Nano-composites using Pulsed Laser Ablation in Liquids (PLAL) 3rd Saudi International Meeting on Frontiers of Physics Jazan, February 18th-20th, 2014.

329. Rao, SG; **Gondal, M.A.**; Dastageer, MA; Yammani, ZH, Morphology and optical properties of organic/inorganic hybrid thin films, ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, WOS: 000348455203884 (2014)
330. Alhashmi, A., Nasr, M.M., Shafik, S., **Gondal, M.A.**, Investigation of periodontal parameters and toxic elements in teeth due to smoking using laser induced breakdown spectroscopy, IEEE proceedings, 2013 High Capacity Optical Networks and Emerging/Enabling Technologies, HONET-CNS 2013, 2013, Article number 6729764, Pages 94-97 .
331. **M.A. Gondal**, T. F. Qahtan, M.A. Dastageer, T.A. Saleh and Y.W. Maganda (2013) Synthesis and Characterization of Copper Oxides Nanoparticles Via Pulsed Laser Ablation in liquids, IEEE proceedings, 2013, 10th International Conference on High Capacity Optical Networks and Enabling Technologies, High Capacity Optical Networks and Emerging/Enabling Technologies, HONET-CNS 2013, Article number 6729774, Pages 146-150.
332. **M.A. Gondal**, Y.W. Maganda, M.A. Dastageer, F.F Al-Adel, A.A Naqvi, T.F Qahtan, Development of a laser induced breakdown sensor for detection of carcinogenic chemicals in cosmetic products, IEEE proceedings, 11th International Conference on High Capacity Optical Networks and Emerging/Enabling Technologies, HONET-CNS 2013, Article number 6729762, Pages 84-8.
333. **M.A. Gondal**, M.S.Sadullah, , D.Panchanathan, G.H. McKinley, K.K.Varanasi(2013) Photo-induced Superhydrophilicity and Underwater Oil Repellency of TiO₂ Films and Its Application for Oil Water Separation, The Photocatalytic and Superhydrophilic Surfaces Workshop, PSS2013, Manchester Museum on the 12th/13th December 2013, United Kingdom
334. M.S.Sadullah, M.A.Gondal , D.Panchanathan, G.H. McKinley, K.K.Varanasi (2013) Facile Method for Fabrication of TiO₂ Based Underwater Superoleophobic Surfaces; The Photocatalytic and Superhydrophilic Surfaces Workshop, PSS2013, Manchester Museum on the 12th/13th December 2013, United Kingdom
335. Naqvi, A. A. Faris A. Al-Matouq, **M. A. Gondal**; A. A. Isab , M. Raashid; M. Dastageer , F. Z. Khiari, Performance of Lanthanum Halide Detectors for Chlorine and Boron Detection in Environmental Bulk Samples. Paper presented in Advancements in Nuclear Instrumentation Measurements Methods and their Applications 2013 (ANIMMA 2013), held on June 23-27, 2013, Palais de Congres, Marseille, France.
336. Naqvi, A. A , **M. A. Gondal**; M. Raashid; Khateeb-ur-Rehman, M. Dastageer. Prompt Gamma Test of a Large Volume Lanthanum Bromide Detector. Paper # 341_10 presented in fifth international symposium Asia-Pacific Symposium on Radiochemistry (APSORC13) held on September 22 -27, 2013, Kanazawa, Japan.
337. Naqvi A. A., Faris A. Al-Matouq , **M. A. Gondal**, F. Z. Khiari, Khateeb-ur-Rehman , M. Raashid, and M. Dastageer. LaCl₃:Ce Detector Performance for 170-500 keV gamma rays. Paper ID: #1212, NPO2-62: Session: NPO2. NSS Poster ; presented in 2013 IEEE Nuclear Science Symposium and Medical Imaging Conference, held on 27 Oct - 02 Nov 2013, COEX, Seoul, Korea (South)
338. **M. A. Gondal**, Y.W. Maganda, M.A. Dastageer, Measurement of Plasma Parameters for fluid Medium using Laser Induced Breakdown Spectroscopy, Gordon Research Conference Laser Diagnostics in Combustion, , Waterville Valley Resort, NH(11-16th August, 2013) USA.
339. **M.A. Gondal**, Liu You-Song, Ji Guang-Bin, Xiaofeng Chang, Synthesis of Si-TiO₂ Core Shell Nanostructures and Their Enhanced Photocatalytic CO₂ Reduction into Methanol Using Laser Radiations, Gordon Research Conference on Photochemistry and its applications, Stonehill College Easton, MA (14 - 19 July 2013) USA.
340. M. N. Siddiqui, K. R. Alhooshani and **M.A. Gondal** ,Use Of Chemical Methods For The Desulfurization Of Model Fuels,44th World Chemistry Congress, 11-16th august, 2013, Istanbul, Turkey.
341. K. R. Alhooshani, M. N.Siddiqui, T. A. Saleh and **M. A. Gondal**, Adsorptive Desulfurization of Model Fuel Oil Using Novel Metal Oxides,- Proc. Pap.-Am. Chem. Soc., Div. Energy Fuels 2013, 58 (1), xxx
342. M.N. Siddiqui, K. R. Alhooshani and **M. A. Gondal**., Brindaban C. Ranu, Desulfurization of Model Fuel Oil Using Novel Ionic Liquids, Proc. Pap.-Am. Chem. Soc., Div. Energy Fuels 2013, 58 (1), xxx
343. **M.A. Gondal**, T.F. Qahtan M.A. Dastageer, T.A. Saleh ,Generation of Copper Oxides Nanoparticles Using Pulsed Laser Ablation in Water, The 9th International Conference and Exhibition on Chemistry in Industry, Manama (Nov2 - 6, 2013) Bahrain.
344. Amani M. Alansi, Talal F. Qahtan , **M. A. Gondal**, Waed Z Alkayali, Maha Al-Qunaibit, Synthesis and Characterization of Layered Double Hydroxide Anionic Clays Intercalated via Sodium Dodecyl Sulfate

- Anion for Application of Polymer/LDH Nanocomposites, The 9th International Conference and Exhibition on Chemistry in Industry, Manama (Nov 2 - 6, 2013) Bahrain.
345. **M.A. Gondal**, M.S. Sadullah, Synthesis of Hydrophobic and Oleophilic Surfaces (films) for Various Applications, The 9th International Conference and Exhibition on Chemistry in Industry, Manama (Nov 2 - 6, 2013) Bahrain.
346. **M. A. Gondal**, Y.W. Maganda, M.A. Dastageer, F. F. Al-Adel, A. Naqvi
Study of Temporal Evolution of Electron Density and Temperature for Atmospheric Plasma Generated from fluid Samples Using Laser Induced Breakdown Spectroscopy, IEEE Proceeding, Second Saudi International Electronics, Communications and Photonics Conference , Riyadh 30 - 27 April, 2013 SIECPC '13.
347. M. N. Siddiqui, K. R. Alhooshani and **M. A. Gondal**, Non-catalytic Deep Desulfurization of Model Fuel Oil, Proc. Pap.-Am. Chem. Soc., Div. Fuel Chem. 2012, 57 (1), 764.
348. S. G. Rao, **M. A. Gondal**, and M. A. Dastageer, "Thickness Dependent Morphology and Optical Study of Metallic Thin Films on Patterns of Self-assembled Monolayers", MRS (Materials Research Society) Spring Meeting-2012, San Francisco, USA (2012).
349. A. Hameed and **M.A. Gondal**, Photocatalytic Production of Hydrogen over Pure and TM (Fe, Co,Cu, Ni, and Zn)-WO₃ Composites: An Overview, Proceedings of the Symposium on Hydrogen and Fuel Cells (July 9-11, 2012) Islamabad.
350. M. A. Ali, **M.A. Gondal**, M. Rashid and M.A. Dastageer, Synthesis of Titania-Silica Nanoparticles For Enhanced CO₂ Conversion Photocatalytic Activity, The Saudi International Nanotechnologies Conference, 1—13 November, 2012, Riyadh.
351. **M.A. Gondal**, T.F. Qahtan M.A. Dastageer, Synthesis and Characterization Of Metal Oxides (Al₂O₃, CuO) Nanoparticles Using Pulsed Laser Ablation Technique, The Saudi International Nanotechnologies Conference, 1—13 November, 2012, Riyadh.
352. **M. A. Gondal**, Laser Based Advanced Technique For Synthesis of Nano Materials, The 6th Vacuum and Surface Sciences Conference of Asia and Australia (VASSCAA-6), 9-13 October, 2012, Islamabad.
353. **M. A. Gondal**, S.G.Rashid, M.A. Dastageer, S. M.Zubair, M. A. Ali, J.H. Lienhard, G.H. McKinley, K.K.Varanasi A study of morphology and Optical properties of nano engineered (Au/Cu/ TiO₂) composites IEEE proceedings, 9th International Conference on High Capacity Optical Networks and Enabling Technologies, HONET 2012, Article number 6421454, Pages 157-161.
354. **M.A. Gondal** and M.A. Dastageer, Photoluminescence studies of pure and silver Doped cadmium sulfide Quantum Dots: potential candidate for fabrication of laser diodes, proceedings 13th International symposium on the Science and Technology of Lighting, Troy, New York, USA, June 24-29, 2012.
355. M.N .Siddiqui, K. Hoshiani and **M.A. Gondal**, Non-catalytic Deep Desulfurization of Model Fuel Oil, ACS meeting, Prep. Pap.-Am. Chem. Soc., Div. Fuel Chem. 2012, 57 (1), 765, Proceedings Published 2012 by the American Chemical Society.
356. **M.A. Gondal**, M.A. Dastageer and A. Khalil(2011), Preparation and Band Gap Shift of Nano-structured Metal Oxides and their activity in Disinfection of Water using Laser Induced Photo-catalysis, IEEE proceedings, IEEE proceedings ,8th International Conference on High-Capacity Optical Networks and Emerging Technologies, HONET 2011, Article number 6149820, Pages 216-220
357. S. G. Rao, **M. A. Gondal** and M. A. Dastageer (2011), Nano Scale Titania Thin Film Morphology and Optical Study on Patterns of Self-assembled Monolayers, IEEE proceedings, 8th International Conference on High-Capacity Optical Networks and Emerging Technologies, HONET 2011, Article number 6149822, Pages 228-232.
358. **M.A. Gondal**, Investigation of Longitudinal Phonon Activity, Spectral Red Shift and Intense Sub-Band Emission in Pure and Silver Doped CdS Quantum Dots, proceedings KAUST-UCSB-NSF Workshop on Solid-State Lighting, 2012 (october 13-14), (KAUST), Thuwal, Saudi Arabia.
359. **M. A. Gondal** , A. A. I. Khalil , N. Suleman (2011) High Sensitive Detection of NO Using Laser Induced Photo Acoustic Spectroscopy, proceedings 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
360. **M. A. Gondal** and M. A. Dastageer, F.F. Al-Adel (2011) ,Determination of Trace Metals in Zamzam water using Dual Pulsed Laser Induced Breakdown Spectroscopy, proceeding 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
361. **M.A. Gondal**, M.A. Ali, M. Salman, M.A. Dastageer, B. Chandbasha (2011) Laser induced photo-catalytic conversion of CO₂ into high-value hydrocarbons using nano-structured metal oxide catalysts,

- proceedings 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
362. G. Khattak, **M.A. Gondal**, A Mekki (2011) XPS studies of laser induced surface modification of vanadium phosphate glass samples, 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
 363. R. Al-Tuwirqi , **M.A. Gondal**, Hala Al-Jawhari, A. K. Sheikh (2011) Design of a Low Power Photovoltaic Concentrator for Solar Power Generation: Geometrical Modeling, proceedings 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
 364. **M. A. Gondal** , A. A. I. Khalil ,G. A. Al Moqbel (2011) , Trace Metal Detection in Insoluble Organic Substances Obtained from Sludges, Styrene Polymer, Hydro-carbon residues, EDC Coke and Spent Clay Using Laser Induced Breakdown Spectroscopy, proceedings 2nd International Conference on Laboratory Technology (LABTECH), Doha, Qatar (10-12, Oct, 2011).
 365. **M.A Gondal**, M.A Dastageer, A Khalil (2011), Nano-NiO as a photocatalyst in antimicrobial activity of infected water using laser induced photo-catalysis, proceedings International Electronics, Communications and Photonics Conference 2011, SIECPC 2011 2011, Article number 5876969 .
 366. **M.A. Gondal**, Q. A. Drmosh, Tawfik. A. Saleh, Z. H. Yamani, Growth of Metal Oxide Nanoparticles Using Pulsed Laser Ablation Technique , proceedings SPIE Photonic West San Francisco USA (22 - 27 January 2011). (invited talk)
 367. Shwehdi, M.H. **Gondal, M.A** (2010), Detecting impurities that lead to electrical cables outages using laser sensing, Annual Report - Conference on Electrical Insulation and Dielectric Phenomena, CEIDP 2010, Article number 5724100
 368. M.N. Siddiqui, **M.A. Gondal** (2011), Use of Laser Induced Breakdown Spectroscopy for determining trace metals in plastic waste, proceedings Faraday Discussions:150, Frontiers in Spectroscopy, 6-8 April, Bassel, Switzerland
 369. Z. Seddigi, N. Yark and **M. A. Gondal**, Photocatalytic Removal of Phenol From Waste Water: A Comparative Study ,Energy Challenges for advanced materials and Process: Harvesting, storage and efficient utilization, Cappadocia, Turkey (May 25-29, 2011).
 370. M. Mbraki, **M. A Gondal** , Z. Seddigi, M. A. Dastageer, Leouifoudi and A. Ziad Analysis Of Olive Residue Samples Processed At Moroccan Industries Using Advanced Laser Based Technique, proceedings Sixth International conference on Laser Induced Breakdown Spectroscopy 2010 (LIBS 2010) Memphis (September 13-17, 2010) Tennessee, USA.
 371. **M.A. Gondal**, A. Dastageer, M. Maslehuddin, A.J. Alnehmi, 3, O. S. B. AL-Amoudi (2010), Determination of Chloride Content at 594.85 nm in Concrete for Corrosion Control Using LIBS, proceedings Sixth International conference on Laser Induced Breakdown Spectroscopy 2010 (LIBS 2010) Memphis (September 13-17, 2010) Tennessee, USA.
 372. **M. A. Gondal**, M. Qamar, Z.H. Yamani (2010) Laser Induced Photo-Catalytic Removal of Chromium Using ZnO Semiconductor Catalyst, proceedings International Conference on Environmental Quality and Health, Galway (27th June-2nd July, 2010) Ireland.
 373. **M. A. Gondal**, A. Khalil, A. Dastageer and Z.H. Yamani (2010) Comparative study of nano and micro ZnO in Antimicrobial activity using Laser induced photo-catalytic Process, proceedings International Conference on Environmental Quality and Health, Galway (27th June- 2nd July, 2010) Ireland.
 374. M.N. Siddiqui, M.A. Gondal (2010) Photocatalytic Degradation Of Health Hazardous Mtbe In Water, proceedings International Conference on Environmental Quality and Health, Galway (27th June- 2nd July, 2010) Ireland.
 375. Siddiqui, M. N. and **Gondal, M. A.** and Nasr, M. M.: "Determination of Hazardous Trace Metals in Mixed Plastics Waste", proceedings 3rd International Conference For Young Chemists 2010 (ICYC2010), Penang, Malaysia, June 23-25, 2010.
 376. **M.A. Gondal**, J. Pola and M.N. Siddiqui, Laser Desulfurization of Crude Oil (Hydrocarbon Fuel), proceedings 8th International Conference and Exhibition on Chemistry in Industry, Manama (October 18 - 20, 2010) Bahrain.
 377. **M.A. Gondal**, Q.A. Drmosh, Z. H. Yamani and T.A. Saleh, Laser Based Techniques For Preparation Of Nanostructured Materials, proceedings 8th International Conference and Exhibition on Chemistry in Industry, Manama (October 18 - 20, 2010) Bahrain.
 378. **M.A. Gondal**, Latest trends in waste water treatment using laser (key note speech) The 8th International Conference and Exhibition on Chemistry in Industry, Manama (October 18 - 20, 2010) Bahrain.

379. Z. Seddigi and **M. A. Gondal**, Removal of Phenol From Waste Water Using Different Types of Semiconducting Catalysts ,Third International Syrian Chemical Conference, Aleppo (27-29 - October 2010) Syria.
380. **M.A. Gondal**, Tawfik A. Saleh , Q.A. Drmash and Z.H. Yamani, Synthesis of Nano-ZnO₂ Using Pulsed Laser Ablation Technique and its Application in Cyanide Sensing, Fifth Saudi Physical Society Annual Meeting, October 25-27, 2010, Abha, Saudi-Arabia.
381. **M. A. Gondal**, M. A. Dastageer, A. Khalil and Z. H. Yamani, Preparation of Nano-structured metal oxides and their activity in disinfection of water using laser induced photo-catalysis, Fifth Saudi Physical Society Annual Meeting, October 25-27, 2010, Abha, Saudi-Arabia..
382. **M. A. Gondal**, A. Bagabas and M. A. Dastageer, Observation of Spectral Red Shift in the Ag²⁺ Doped Cd²⁺S Quantum Dots, Fifth Saudi Physical Society Annual Meeting, October 25-27, 2010, Abha, Saudi-Arabia..
383. M. Mabarki, **M. A Gondal**, Z.Seddigi, (2010), Analysis Of Olive Residue Samples Processed at Morocco Oil Industries using Advanced Laser Based Technique , Conference on Chemistry, Morocco.
384. **M.A. Gondal**, Laser Research Activities at KFUPM, Workshop on Laser Produced Plasma and its Applications, Dhahran Saudi Arabia (27 April 2010).
385. Khalil, **M. A. Gondal**, A. Dastageer and A. Bagabas (2010) Disinfection of Escherichia Coli Bacteria from Water by Laser Induced Photo-Catalytic Process using Pure and Doped nano-WO₃ International Conference on Environmental Science and Development (CESD 2010) February 26-28, 2010, Singapore (ISI Proceedings).
386. M.N. Siddiqui M.A. Gondal, and M.M. Nasr (2010) Managing waste plastic by tertiary recycling Process and LIBS, EnviroArabia, Driving Environmental progress in changing Times” Manama, Bahrain (18-21 April. 2010).
387. M. A. Randhawa, **M. A. Gondal**, A. Aziz Bagabas Activity of Nano-Palladium implanted on Zinc Oxide against Invasive Enteric pathogens, Fourth Saudi Science Conference, 21-24 March 2010, Taybah University, Madinah, KSA.
388. M. M. Nasr, **M. A. Gondal**, Z.H. Yamani, Detection of Hazardous Contaminants in Lead based Paint using Laser Induced Breakdown Spectroscopy, Fourth Saudi Science Conference, 21-24 March 2010, Taybah University, Madinah, KSA.
389. **M.A. Gondal**, Q.A. Drmash , Z. H. Yamani and T.A. Saleh , Synthesis and Characterization of ZnO₂ Nanoparticles using Optical Techniques, presented at the Fourth Saudi Science Conference, 21-24 March 2010, Taybah University, Madinah, KSA.
390. **M.A. Gondal**, Laser Induced Breakdown Spectroscopy and Its Applications in Detection Of Health Hazardous Contaminants, Invited Distinguished Speaker, World Academy for Laser Applications (WALA) Conference Bahrain International Exhibition Centre, October 19-21, 2009.
391. **M.A. Gondal**, M.M. Nasr, Z.H. Yamani, Laser Sensor for Detection of Toxic Ingredients in Cosmetic Products for Human Use, World Academy for Laser Applications(WALA), Invited Distinguished Speaker, World Academy for Laser Applications(WALA), Conference Bahrain International Exhibition Centre. October 19-21, 2009.
392. **M. A. Gondal**, Advanced Laser Based Techniques and Their Applications in Pollution Monitoring, Kuwait Lab Technology Conference and Exhibition, November 4-5, 2009.
393. Bagabas, **M. A. Gondal**, A. Khalil, M. A. Dastageer, Z. H. Yamani, M. M. Ashameri (2010), Laser-Induced Photocatalytic Inactivation of Coliform Bacteria in Water Using Pd-Supported on Nano-WO₃ Catalyst, 10th International Symposium on Scientific Bases for the Preparation of Heterogeneous Catalysts Louvain-la-Neuve, Belgium July 11-15, 2010.(ISI Proceedings)
394. M. A. Randhawa, A. J. Al-Zahrani, **M. A. Gondal**, A. A. Bagabas (2009) An in vitro study for the antimicrobial activity of Nano ZnO and Pd loaded Nano ZnO, 11th International Conference on advanced materials, (ICAAM 2009) Rio De Janeiro, Brazil, 20-25 September, 2009.
395. **M. A. Gondal**, K. Hayat, M. N. Sayeed (2009), Laser induced Photo-catalytic degradation of organic contaminants from water using semiconductor metal oxides, paper 3C-O646 6th world Congress on Oxidation Catalysis, 5-10th July, 2009 Lille, France.
396. A. Bagabas, **M. A. Gondal**, A. Al-Muhanna, T. Alanazi, M. A. Dastageer and M. Ababtain Laser based Photoluminescence Studies of Silicon Nano Particle synthesized using Chemical Method Based on Pt (IV), International Conference on Nano technology and Advanced material (ICNOM 2009) Bahrain, 4-7 May, 2009.

397. M. A. Gondal, K. Hayat, Z. H. Yamani and S. Ahmed (2009) Removal Of Hazardous Organic Dye From Water Using Nanostructured Metal Oxides And Lasers, International Conference on Nano technology and Advanced material (ICNOM 2009) Bahrain, 4-7 May, 2009.
398. **M. A. Gondal**, Q.A. Drmash, Z. H. Yamani (2009) Surfactants Effect On The Morphology Of Nanoparticles Synthesized By Novel Laser Ablation Method at 355 nm , International Conference on Nano technology and Advanced material (ICNOM 2009) Bahrain, 4-7 May, 2009.
399. **M.A. Gondal**, T. Hussain and Z.H Yamani (2009), In-situe Monitoring of Removal of Toxic Pollutants in Soil Using Laser Induced Breakdown Spectroscopy (LIBS) KACST Proceeding (2009).
400. **M. A. Gondal** , A. Dastageer and A. Khalil (2009) Laser Induced Photo - Catalytic Process for Removal Of Bacteria from Waste Water using nano structured Semiconductor Catalysts, The International Conference on Water Conservation in Arid Region (ICWCAR, 2009) ,Jeddah, 12-14 October, 2009.
401. **M. A Gondal**, Q.A. Drmash, Z. H. Yamani (2009) Study of Post Annealing Temperature Effect On Size of Synthesized Nano Structure ZnO Using High Power Pulsed Laser Ablation Technique, The International Conference For Nanotechnology Industries The Leading Technology of 21st Century Riyadh, Saudi Arabia, 5-7 April, 2009.
402. **M. A. Gondal**, M. N. Sayeed and K. Hayat (2009), Laser Enhanced Photo-catalytic Removal of Toxic Organic Matter (C₆H₅OH) from Waste Water Using Different Semiconductor Catalysts , Tayabah International Conference on Chemistry, March, 21-23, 2009, Madina, Saudi Arabia.
403. **M.A. Gondal** (2009), Rapid Assessment of Concrete and Cement Samples Using Laser Induced Breakdown Spectroscopy, 3rd workshop on Concrete Deterioration and Prevention (11 Feb, 2009) Dhahran Saudi Arabia.
404. **M. A. Gondal**, T. Hussain, and Z.H. Yamani (2008) On Line Monitoring of Remediation Process of Chromium Polluted Soil Using Laser Induced Breakdown Spectroscopy (LIBS), Fourth Saudi Physical Society Annual Meeting, November 11-12, 2008 , Riyadh, Saudi-Arabia.
405. **M. A. Gondal** , M. A. Dastageer (2008), Resonant Enhanced Stimulated Raman Scattering of Hydrogen due to Balmer H ϵ Line, Fourth Saudi Physical Society Annual Meeting, November 11-12, 2008 , Riyadh, Saudi-Arabia.
406. M. N. Siddiqui and **M. A. Gondal** (2008) Rapid and Accurate Characterization Of Plastic Waste Using Laser Based Spectral Analysis, CHEMCON -2008, Indian Chemical Engineering Congress, December 27-30, 2008, Chandigarh, India.
407. **Gondal, M. A.**, A. Khalil (2008) Application Of Laser Induced Photo-Catalysis As Disinfectant For Various Pathogenic and Non Pathogenic Organism, 2nd World Conference on Magic Bullets Ehrlich II) October 3 - 5, 2008, Nurenberg, Germany (accepted as oral presentation but could participate due to fund lacking).
408. **M. A. Gondal**, Zulfiqar Ahmed, M.M. Nasr and Z. H. Yamani (2008) Trace elemental analysis of lava samples using laser induced breakdown spectroscopy, 1st International Conference on Laboratory Technology (LABTECH), Manama, Bahrain (20-22 Oct, 2008).
409. **M.A. Gondal**, M.N. Siddiqui and M.M. Nasr (2008) Finger Printing Of Different Types Of Plastics Using A Laser Sensor, 1st International Conference on Laboratory Technology (LABTECH), Manama, Bahrain (20-22 Oct. , 2008).
410. **M. A. Gondal**, A. Dastageer and Z. H. Yamani (2008) Detection Of Ozone at 266 nm Using Fourth Harmonic Of Nd:YAG Laser, 1st International Conference on Laboratory Technology (LABTECH), Manama, Bahrain (20-22 Oct. , 2008).
411. M.A. Gondal (2008) Key Note Speaker entitled: Laser applications in oil industry, workshop on laser applications in chemical analysis and oil industry (27-28 April , Khartoum, Sudan).
412. M. H. Shwehdi and **M.A. Gondal** (2008), Outages Investigation and Characterization of Saudi Electrical Cables using Laser Induced Breakdown Spectroscopy, IEEE Conference On Electrical Insulation and Dielectric Phenomena Québec City , Canada October 26-29, 2008. published in Annual Report CEIDP article # 4772779, pages 45- 48, 2008.
413. **M. A. Gondal** (2007) Invited talk on Applications of laser induced photo-catalysis in hydrogen production, hydrocarbon conversion, disinfection of bacteria and phenol removal form waste water, the 4th International Symposium on Non-Crystalline Solids and The 8th Brazilian Symposium on Glass and Related Materials, Aracaju, SE, Brazil (Oct 19-26, 2007).

414. **M. A. Gondal**, T. Hussain, and Z.H. Yamani (2007) Determination of trace elements in Arabian crude oil using laser radiations, International Conference on Chemistry in Industry (CHEMINDIX 2007), Manama, Bahrain (March 26-28, 2007).
415. **M. A. Gondal**, T. Hussain Influence of Ambient Gas Pressure On Performance of Laser- Induced Breakdown Spectrometry for Planetary Science Applications , 28th International Conference on Phenomena in Ionized Gases (ICPIG), Prague (July15-20, 2007),Czech Republic.
416. **M. A. Gondal**, Z. Seddigi and M. N. Sayeed (2007) Photocatalytic degradation of phenol from water using semiconductor catalysts irradiated with strong UV laser, International Conference on Chemistry in Industry (CHEMINDIX 2007), Manama, Bahrain (March 26-28, 2007).
417. T. Hussain, **M. A. Gondal**, and M.A. Baig (2007) Detection of hazardous metals in waste water collected from plastic syringes manufacturing plant using laser induced breakdown spectrometry, International Conference on Chemistry in Industry (CHEMINDIX 2007), Manama, Bahrain (March 26-28, 2007).
418. **M. A. Gondal** , Z. H. Yamani, A. Dasatgeer and I. A. Bakhtiari (2007) Electronically modulated photoacoustic spectrometer for detection of trace gases , International Conference on Chemistry in Industry (CHEMINDIX 2007), Manama, Bahrain (March 26-28, 2007).
419. **M. A. Gondal**, Z. H. Yamani and I. A. Bakhtiari (2007) Photoacoustic detection of ozone using wave guide CO₂ laser, 14th International Conference On Photoacoustic and Photothermal Phenomena (ICPPP). Cairo, Egypt (January 6 - 9, 2007).
420. **M. A. Gondal** , T. Hussain, Z. H. Yamani and O.S.B Al-Amoudi(2007) Determination of chloride content in different types of cements with Laser Induced Breakdown Spectroscopy, 3rd Saudi Science Conference: New Horizons in Science and Their Applications , Riyadh, Saudi-Arabia (March 10-14, 2007)
421. **M. A. Gondal**, T. Hussain, Z. H. Yamani and A. Bakari (2007) Determination of elemental composition in iron slag waste using laser induced breakdown spectroscopy, 3rd Saudi Science Conference: New Horizons in Science and Their Applications , Riyadh, Saudi-Arabia (March 10-14, 2007).
422. **M. A. Gondal**, T. Hussain, , Z. H. Yamani (2007) Influence Of Ambient Gas Pressure On Performance Of Laser- Induced Breakdown Spectrometry For Planetary Science Applications Saudi Physical Society Annual Meeting , Riyadh, Saudi-Arabia (December16-18, 2006).
423. Abdulmajeed, T. Hussain, **M. A. Gondal** and Z.H. Yamani (2006) Photoacoustic and laser induced breakdown spectrometry and its applications in the field of environment, 3rd Educational Scientific Gathering in the Eastern Province/ Physics Festival, Dhahran, May, 2006, Saudi-Arabia..
424. **M.A. Gondal** (2006), Global Environmental Problems and need for advanced laser based analytical techniques, Plenar Lecture , 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26, 2006).
425. **Gondal, M. A.** T. Hussain, Z. H. Yamani and Z. Ahmad (2005), Environmental applications of laser induced breakdown spectroscopy: analysis of oil, soil and ore waste samples, Second Saudi Conference on Physics and its applications in the kingdom, Mecca (22-24 November 2005).
426. **Gondal, M. A.** I. A. Bakhtiari, and Z. H. Yamani (2005), laser based sensor for ozone detection, Second Saudi Conference on Physics and its applications in the kingdom, Mecca (22-24 November 2005).
427. Arfaj, **M. A. Gondal**, A. Hameed, and Z. H. Yamani (2004), Photocatalytic performance of NiO catalyst in oxidative coupling of methane into methanol under UV laser irradiation, Symposium on catalysts applications in GC countries Sharja-UAE (13-15 December 2004).
428. **M.A. Gondal**, A. Dastgeer and I.A. Bakhtiari (2004), Development of laser based novel systems for industrial pollution monitoring, Fourth specialty international conference on Environmental progress in the petroleum & Petrochemical industries, Manama, Bahrain (23-25th February, 2004).
429. **M. A. Gondal**, and U.K. A. Klein (2004), Measurement of turbulent flows with Doppler lidar, International Mechanical Engineering Conference-2004 Kuwait (December, 2004).
430. **M. A. Gondal**, L. Lelli, K. Stalmaszczyk, S. Frey and L. Woeste (2004), LIDAR Measurements of Tropospheric Aerosols and Boundary Layers, 35th COSPAR Scientific Assembly, On Space Research and Remote Sensing, Paris (18-25Th July 2004).
431. **M. A. Gondal**, A. Hameed, Z. H. Yamani, and A. Arfaj (2004), Activity of WO₃ , NiO and Fe₂O₃ Catalysts for Hydrogen Production under UV Laser Irradiation, International conference Chemistry in industry (CHEMINDIX 2004), Manama, Bahrain (September 27-29, 2004).

432. **M. A. Gondal**, A. Hameed, Z. H. Yamani, and Z. Seddigi (2005), Laser-induced photocatalysis and its applications in petrochemicals, fuel cells and phenol degradation , 15th Saudi-Japanies symposium on Catalysis, Dhahran (27.11-28, 11, 2005).
433. **M. A. Gondal**, A. Hameed, Z. H. Yamani, and A. Arfaj (2004), Comparative study of laser photo-catalytic conversion of methane into methanol over different catalysts, International Conference on Chemistry and Industry, Riyadh (27.11-1.12, 2004).
434. **M. A. Gondal**, A. Hameed, Z. H. Yamani, A. Suwaiyan and A. Arfaj (2004), Laser photo-catalytic conversion of methanol into hydrogen, Second Saudi Science Conference, Jeddah (Saudi Arabia).
435. **M.A. Gondal**, L. Lelli, K. Stalmaszczyk, S. Frey and L. Woeste (2004) Tropospheric aerosols profiles and their effect on environment using light detection and ranging technique, Second Saudi Science Conference, Jeddah (Saudi Arabia).
436. Z. H Yamani, **M. A. Gondal**, E. Heghazi and M.H. Masoudi (2003), Industry oriented research at LRS at KFUPM, First Saudi Physical Society Conference, Abbah, Saudi-Arabia.
437. **M. A. Gondal**, A. Hameed, Z. H Yamani and A. Al-Suwaiyan (2003) Photocatalytic Splitting of Water into Hydrogen and Oxygen Using Laser, The 4th Middle East Refinery & Petrochemical Conference (Petrotech), Manama, Bahrain (30th September -1st October, 2003).
438. Z.H Yamani, **M. A. Gondal**, A. Hameed, A. Dastageer and A. Arfaj, Hydrogen Production by photo-dissociation of methane with UV laser, The 4th Middle East Refinery & Petrochemical Conference (Petrotech), Manama, Bahrain (30th September – 1st October, 2003).
439. **Gondal, M. A.** A. Dastageer and I. A. Bakhtiari (2003) Performance Enhancement of CO₂ - laser based Photoacoustic System for Trace Gas Monitoring, International conference, XXIII ICPEAC, Stockholm, Sweden.
440. **M. A Gondal**, A. Dastgeer, Zain. H. Yamani, M. A. Ali and A. Arfaj (2002) Characterization of stimulated Raman scattering of methane, International Conference on Laser Probing, Leuven (July 7th – 13th) Belgium.
441. **M. A. Gondal**, M. H. Shwehdi and A. Dastgeer (2002), Probing of leaks and hazardous gases with photoacoustic spectroscopy, International Conference on Laser Probing, Leuven(July 7th – 13th) Belgium.
442. **Gondal, M. A.**, A. Hameed and A. Al-Suwaiyan(2002), Laser photocatalytic conversion of methane using wo₃ and water, 5th International conference on Chemistry in Industry, Manama (Oct 14-16) Bahrain.
443. **Gondal, M. A.**, A. Dastgeer, Zain. H. Yamani, M. A. Ali and A. Arfaj (2002), Photoinduced coupling of methane using pulsed UV laser, 5th International conference on Chemistry in Industry, Manama (Oct 14-16) Bahrain
444. **Gondal, M. A.**, A. Dastgeer, Zain. H. Yamani, M. A. Ali and A. Arfaj (2002), Photoconversion of Methane into higher hydrocarbons and hydrogen using laser, Third Jordanian International Conference of Chemistry, Yarmouk (22–26 April) Jordan.
445. **Gondal, M. A.**, A. Hameed and A. Al-Suwaiyan (2001), Laser Induced Photocatalytic Conversion of Methane into Methanol, 11th Japanese–Saudi Symposium on Catalysis, Dhahran (11-12 November, 2001).
446. M. H. Shwehdi, **Gondal, M. A.**(2001), A laser photoacoustic system for detection of SF₆ in gas insulated systems, IEEE Conference on Electrical Insulation and Dielectric Phenomena (CEIDP), WATERLOO, CANADA, OCT 14-17, 2001 ISI proceedings page 104-109. ISBN: 0-7803-7053-8
447. **Gondal, M. A.**, M. H. Shwehdi and M. A. Baig, (2001), Laser Photoacosutic System for Detection of SF₆ Leaks In Switchgear High Power Systems, CIGRE, Dubai (May 6-10, 2001)
448. **Gondal, M. A.**, Z. Ahmad, M. A. Khan and A. Baig, Laser induced breakdown spectroscopy of geological rocks, 6th Saudi Engineering Conference, Dhahran (Oct 21-23, 2002) Saudi-Arabia.
449. M.A. Khan, **M. A., Gondal**, A.A. Al-jalal, M. S. Hussain, I. A. Baktiari and A. Abdullah Ali, on-line measurements of Oxidation of Carbon using visible spectroscopy, 6th Saudi Engineering Conference, Dhahran (Oct 21-23,2002) Saudi-Arabia.
450. **M. A. Gondal**, J. Mastromarino and U.K. A. Klein, remote measurements of flow rates of polluted water with Doppler Velocimetry, 6th Saudi Engineering Conference, Dhahran(Oct 21-23, 2002) Saudi-Arabia. First Saudi Science Conference, Dhahran, Saudi-Arabia (April 9-11, 2001).
451. S. Ahamd, M. S. Hussain, M. A. Khan, S.A. Ali, A.R. Arfaj and **M. A. Gondal** (2001), Some recent results of enhanced polymerization of MMA and Styrene using pulsed laser technique, First Saudi Science Conference, Dhahran, Saudi-Arabia (April 9-11, 2001).

452. **Gondal, M. A.**, J. Mastromarino and I. A. Bakhtiari (2000). Light detection and ranging system for remote sensing of environment, 2000 Technical Exchange Meeting, Saudi- Aramco, Dhahran (1-2nd May, 2000).
453. **Gondal, M. A.**, J. Mastromarino (2000). Photoacoustic Detection Of Hazardous Gases Using MOPO Laser, First Saudi Science Conference, Dhahran, Saudi-Arabia (April 9-11, 2001).
454. M. A. Khan, R. J. Dewhurst, **M. A. Gondal**, S. A. Alkabi, Y.N. Al-nassar and A. Baig (2001), Ultrasonic inspection of materials defects using laser,
455. **Gondal, M. A.**, E. E. Khawaja, and S. M. A. Durrani, (1998) Fast rise time thin oxide film laser detector, 13th Australian AIP Congress, Fremantle, Western Australia (21 - 27 Sep, 1998).
456. **M.A. Gondal**, Khan and M.H. Rais (1997). Collision induced spectra of calcium dimer, XXX Colloquium Spectroscopicum Internationale, (21-26th Sept. 1997) World Congress Center, and Melbourne, Australia.
457. **Gondal, M. A.** and I. A. Bakhtiari (1997) Photoacoustic spectroscopy of gases, XXX Colloquium Spectroscopicum Internationale, (21-26th Sept. 1997) World Congress Center, Melbourne, Australia
458. Khan, M.A., **M. A. Gondal**, M.R. Qureshi and M.H. Rais (1995), Excitation transfer in highly excited calcium atoms through collisions with argon. 12th International Conference on Laser Spectroscopy, Paper p III-30 (11-16 June 1995) Island of Capri, Italy.
459. **Gondal, M. A.**, J. Mastromarino and I. A. Bakhtiari(1997) Lidar system for atmospheric remote sensing, Saudi-French Workshop on Recent Developments in Materials and Modeling, (11-12 Nov. 1997) Dhahran, Saudi-Arabia.
460. **Gondal, M. A.**, I. A. Bakhtiari and S. M.A Durrani (1997). Sensitive detection of NO₂ at 10.6 μm, Saudi-French Workshop on Recent Developments in Materials and Modeling, (11-12 Nov. 1997) Dhahran, Saudi-Arabia.
461. **Gondal, M. A.**, J. Mastromarino and I. A. Bakhtiari(1998). Remote environmental monitoring with lidar, workshop on remote sensing for exploration and environment, Dhahran, Saudi-Arabia (26-29 Oct,1998).
462. **Gondal, M. A.** (1996), Development of photoacoustic system for continuous monitoring of toxic gases for safe environment at industrial complex, Proceedings 3rd Safety & Occupational Health Conference, Paper Tu-30 (25-30 May 1996) Dammam, Saudi-Arabia.
463. **M.A. Gondal**, K.A. Annahdi and F. F. Al-Adel (1996), The use of laser in environmental pollution and radiation protection activities at energy research laboratory, Proceedings First National Conference on Environmental Pollution & Health, Paper P- 42 (8-11 January 1996) Jeddah, Saudi-Arabia.
464. **Gondal, M. A.**, M.A. Khan and M.H. Rais (1995), Vibrational-rotational analysis of collision induced spectra of Ca₂. Adriatico Research Conference on "Chaos in Atoms and Molecules", (18-21 July 1995) ICTP, Trieste, Italy.
465. **M.A. Gondal** Khan and M.H. Rais. (1994), Doubly excited states of calcium with $J \leq 5$. Second International Conference on Lasers in Science and Technology, Paper M-3 (13-16 August 1994) Amman, Jordan.
466. **Gondal, M. A.**, M.A. Khan and M.H. Rais. (1994), Galvanic detection of laser-pumped electric quadrupole transition of calcium. Second International Conference on Lasers in Science and Technology, Paper M-4 (13-16 August 1994) Amman, Jordan.
467. Khan, M.A., **M. A. Gondal**, and M.H. Rais (1994), Channels of collisional excitation of 4p 2p states of Ca II following pulsed laser pumping of the transition of Ca I. 14th International Conference on Atomic Physics, Paper T-2 (31 July - 5 August 1994) University of Colorado, Boulder, USA.
468. Khan. M.A., **M. A. Gondal**, and M.H. Rais (1993), Population dynamics of 4s3d 3DJ and 4s4p 3PJ following pulsed laser pumping of 4s4p 3P1 state. 18th International Conference on Physics of Electronic and Atomic Collisions, Paper P-625 (21-27 July 1993) Aarhus, Denmark.
469. Shahdin, S., **M. A. Gondal**, and S. M. Sharada (1990), Observation of new bound - free emission in L.I.F. studies of molecular sodium in the UV region using 351 nm (XeF) and 337.1 nm (N₂) Laser. International Workshop on Plasma and Laser Technology 921-28 February 1990) Cairo, Egypt.
470. **Gondal, M. A.**, S. Shahdin and S.M. Sharada (1989), Detection of new diffuse bands of alkali dimers excited with an excimer laser. Conference on Lasers in Science and Technology, Paper M-18 (14-19 October 1989) Amman, Jordan.

471. **Gondal, M. A.**, S. Shahdin, J. Shebani and K. Laswad (1989), Local development of CO₂ laser and small signal gain measurements on an oscillator - amplifier system. First International Conference on Physics, Paper C-1 (3-6 July 1989) Tripoli, Libya.
472. Twati, M. and **M. A. Gondal** (1989), Design and fabrication of fast pulsed N₂ laser. First International Conference on Physics, Paper C-3 (3-6 July 1989) Tripoli, Libya.
473. Ghemati, S., **M. A. Gondal**, and S. Shahdin (1989) Optoacoustic detection of pollutant gases using CO₂ laser. First International Conference on Physics, Paper C-4 (3-6 July 1989) Tripoli, Libya.
474. Shahdin, S., **M. A. Gondal**, and S.M. Sharada (1988), Some recent results on the XeF (351nm) excimer laser excited violet bands of sodium. Third International Conference on Lasers and their Applications (10-14 October 1988) Plovdiv, Bulgaria.
475. Shahdin, S., **M. A. Gondal**, and S.M. Sharada (1988), Laser induced fluorescence studies of alkali dimers. Topical Meeting on Laser Materials and Laser Spectroscopy, Paper P-25 (25-27 July 1988) Shanghai, China.
476. **M.A. Gondal**, S. Shahdin and M.S. Omar. (1988). A study of diffuse bands in Li₂. LAMP conference, Winter College on Lasers, Paper D-1.1 (22 February - 11 March 1988) ICTP Trieste, Italy.
477. Shahdin, S., **M. A. Gondal**, M. Dugha and F.M. Mansouri (1986), Superfluorescent molecular emission from PbI₂ molecule using excimer laser. First symposium on laser spectroscopy (28-30 August 1986) Pecs, Hungary.
478. **M.A. Gondal**, W. Rohrbeck and W. Urban (1985), High-resolution spectroscopy of CF radical with CO₂ laser. Winter College on Laser, Atomic and Molecular Physics, Paper F-3 (January - March 1985) ICTP, Trieste, Italy.
479. **M.A. Gondal**, W. Rohrbeck, W. Seebas and W. Urban (1983), LMR observation of vibration-rotation spectrum of the CF. Annual Spring Meeting of German Physical Society, Paper M-129, Wuerzburg, Germany.
480. **M.A. Gondal**, W. Rohrbeck and W. Urban (1982), Observation of first pure vibration-rotation transition in excited state of CO ($a^3\pi$). Annual Spring Meeting of German Physical Society, Paper M-125, Regensburg, Germany.
481. **M.A. Gondal**, A. Hinz, W. Rohrbeck and W. Urban (1981), LMR laser between 6 and 7 μm . Seventh Colloquium on High Resolution Molecular Spectroscopy, Paper J-11, Reading, England.
482. Niebuhr, F., **M. A. Gondal**, W. Rohrbeck and W. Urban (1981), LMR observation of the ν_2 -bending mode in the HO₂ radical at 7.17 μm , 15th Symposium on Free Radicals, Paper C-4, Nova Scotia, Canada.
483. **Gondal, M. A.**, N. Ahmad and M.A. Khan (1979) High voltage switching system for pulsed CO₂ laser, Electronics. Vol.1, 369, ed. M. Aslam (PAEC Press, Islamabad).

Leadership in Research Projects (Completed or under Progress)

1. **Principal Investigator, Internal project # DISC1505**, Development of Novel Nano-Engineered Surfaces for Efficient Oil-Water Separation and disinfection of Sulfate Reducing Bacteria (1 September 2017 – 30 September 2020)
2. **Principal Investigator, Internal project # DISC1504**, Development of Efficient Water Purification Process for Removal of Hazardous Environmental Pollutants from Waste Water Using Advanced Nanocomposite Photo-Catalysts (1 April 2018 – 30 September 2021)
3. **Principal Investigator, NSTP (National Science and Technology Plan) Project # 15-ADV4907-04** Synthesis of Crystalline Semiconductor Nanostructures using the Pulsed Laser Ablation Technique (march 2016 – april 2018). **Principal Investigator, Internal project # IN161001**
4. **Principal Investigator, Internal project # RG-161002**, Development of Perovskite and Dye Sensitized Solar Cells using Nano-engineered Pure, Doped and Composite Semiconducting Materials Synthesized by Pulsed Laser Ablation for Enhanced Efficiency (April 2017 – Septemebr 2020).
5. **Principal Investigator, Internal project # IN161001, Distinguished Professorship Award** (September 2010- Sept 2019).
6. **Principal Investigator, Internal project # Rg1421-1 & Rg1421-2**, Laser Induced Breakdown Spectrometer for Trace Elemental Analysis of Food and Cosmetic Products (September 2015- Novemebr 2018).

7. **Principal Investigator, NUS-KFUPM Project # NUS 15109** Laser induced photocatalytic removal of organic pollutants from water using nano-structured metal oxides (April 2016-Aug 2021).
8. **Principal Invetsigator, Internal project # IN141024**, Book project entitled: Novel Bismuth Oxyhalide based Materials and their Applications (May 2015-April 2017).
9. **Co- Investigator Internal project # Rg 1405-1 & Rg 1405-2**, Pulsed laser deposited Bismuth telluride Thin films Study for Thermoelectric Applications (March 2015-december 2017).
10. **Principal Invetsigator, # MIT-11109, 11110**(MIT project number: 6926440/6926441), Remediation of Water Produced in Resource Extraction (2012- Aug 2014) joint with MIT.
11. **Principal Invetsigator, # MIT-13103,13104** (MIT project number: 6926440/6926441) (Remediation of Water Produced in Resource Extraction (Sep 2014 - Aug 2017) joint with MIT.
12. **Principal Investigator (TIC -KFUPM) project # CCS-16** funded by KACST Carbon Dioxide Conversion Into Value-Added Hydrocarbons Over Highly Active and Economic Catalysts In Photochemical and/Or Electrochemical Reduction Process Enhanced By Photo-Catalysis (December 2014-March 2018).
13. **Consultant, project NSTIP#12-NANO2317-10**, Synthesis and Characterization of Light-Harvesting Nanomaterials for Renewable Energy and Photocatalysis Toward Clean Water (jan 2105-jan 2017).
14. **Principal Investigator Internal project # Rg1311-1 & Rg1311-2**, Synthesis of nanoalloys and nanocomposites using pulsed laser ablation in liquids (May 2013- Sep 2016).
15. **Distinguished professorship award IN161001 (sep 2010- sep 2019)**.
16. **Co- Investigator Internal project # Rg 1221-1 & Rg 1221-2**, Effects of Pulsed Nd:YAG Laser fluence on the Structural properties and Valence States of Transition Metal Ions in Phosphate Glasses (Sep2012-december 2014).
17. **Co- Investigator Internal project # Rg1201-1 & Rg1201-2**, Comparison of Detection Sensitivities of Prompt Gamma-Ray Neutron Activation Analysis and Laser Induced Breakdown Spectroscopy Techniques for Analysis of Toxic Elements Ag, Br, Cd, Cr, Cl, Gd, Hg, Ni and V in Liquid and Solid Samples (Nov,2011-June 2015).
18. **Co-Investigator NSTP (National Science and Technology Plan) Project #10—NAN1387**, Development of highly efficient visible-light-driven mesoporous nanostructured materials for photocatalytic applications (Dec 2012-Feb2014).
19. **Co-Investigator NSTP (National Science and Technology Plan) Project # 10—NAN1386**, Lanthanide-doped Oxide Nanoparticles Multi-modal Molecular Imaging Agents (sept 2011-Feb 2014).
20. **Co-Investigator, NSTP (National Science and Technology Plan) project # No. 10-wat1240-10** , Synthesis of Nano Structured Composites and Their Application in Elimination of Methyl Tertiary Butyl Ether (MTBE) From Water (Sept 2012-Jan 2014).
21. **Co-Investigator, Internal project # Rg 1103-1 & Rg 1103-2** Synthesis and Optical Characterizations of Hybrid Nano-Structures Using Advanced Laser based Techniques (March 2011-April 2014).
22. **Principal Investigator, Internal project # Rg1011-1 & Rg1011-2**, Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts (Oct 2010- March 2013).
23. **Principal Investigator, SABIC# 090023** Pulsed Laser Ablation for Synthesis of Nanostructured ZnO and ZnO₂ (March 2009-september 2010 , completed).
24. **Principal Investigator, NSTP (National Science and Technology Plan) Project # 08-NAN93-4**; Applications Of Nanoscale Materials (Metal Oxides) Using Laser Induced Photo-Catalytic Process (Sep 2009 – Oct2011).
25. **Co-invetsigator, MIT-10110** Design and manufacturing part III (march 2010-2011).
26. **Co-invetsigator, MIT-10109** PV water pumping-part IV III (Feb 2012-Feb. 2014).
27. **Principal investigator, Distinguished professorship award, IN100038, (2010-till date) and IN131001**.
28. **Co-Investigator, IN# 101022** Nanocomposite materails co-polymers oragnomodified clay (may 2011-- may 2014).
29. **Co- Investigator NSTP (National Science and Technology Plan) Project # 08-ADV-704**, Advanced bioinert ceramic filter materails with guided macro-micro-nano porous structure manufactured using microwave and laser sintering process.
30. **Co-Investigator, KACST # DRP-4-25** Development of Technologies For Deep Desulfurization of Fuel Oils (May 2010, June 2013)
31. **Principal Investigator, KACST # 28-40**, Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts. (Jan 2009- Jan2011).

32. **Principal Investigator, Core Center of Corrosion #CR-1-2010** Development of Laser Induced Breakdown Spectrometer for the Determination of Chloride and Sulfate Concentration in Concrete Structures for Assessment of Reinforcement Corrosion (January 2010- december 2012).
33. **Co-Investigator, FT# 100034** Laser nanomaterials Phenol Detection (may 2011- 2012- January 2012).
34. **Co-Investigator, SABIC# 090020** (March 2009- October 2010) Removal Of Methyl Tertiary Butyl Ether (MTBE) From Water Using Laser Based Photo-Oxidation Process.
35. **Co-Investigator, Internal project # IN080427** Identifying the Causes of Saudi Arabia Low Voltage Cables Outages by Applying Explicit Measures and Laser Induced Breakdown Spectroscopy (LIBS) (January 2009-Novemembr 2010).
36. **Co-Investigator, Internal project # IN090025** (April 2009-april 2012)Laser Approach to Metal Nanoalloys, Its Optimization & Search for Novel Alloy Nanostructures materials .
37. **Principal Investigator, Sabic project # SABIC - 07004** (2007-2009) Laser induced photo-catalytical removal of phenol for waste water treatment .
38. **Co-Investigator, internal project# In-080401** (2008-2011). Development of LIBS spectrometer for various applications (2008-2011).
39. **Principal Investigator, Sabic project # SABIC - 2005/11** Laser Sensor For Detection Of Ozone (started on Oct 2005, ended May 2007).
40. **Principal Investigator, Sabic project # SABIC - 2002/01** Photocatalytic Conversion Of Methane into Methanol Using Laser, (duration 18 working months, started on 1.2..2003, ended date: 3.11.2004).
41. **Principal Investigator, Sabic project # 2000/ft-14** In situ detection of SF₆ leaks in power systems using laser, (duration 18 months, started on 1.12.2000, completed on 31.12.2002).
42. **Co-Investigator, Sabic project # 2000/SA-12** Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, (duration 18 months, started on 1.10.2000, completed on 31.12.2002).
43. **Co-Investigator,, Sabic project # 2000/SA-11** Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, (duration 18 months, started on 1.10.2000; completed on 31.12.2002).
44. **Principal Investigator, internal project RI PN# 12063** Development of laser based remote sensors for environmental studies, (duration 24 months, start date on 1.9.2002, ending date 31.10.2005, project on hold since April 2004 due to shortage of manpower).
45. **Principal Investigator, Client Funded Project# SQ 2419** Monitoring of Volatile Organic Compounds Pollutants (Total Organic Carbon, Benzene, Styrene and Naphthalene) using electromagnetic radiation absorption and photoacoustic detection technique" at Saudi Petrochemical Complex Yanbu (YANPET). (three months duration, project completed successfully in 1996).
46. **Principal Investigator, Client Funded Project# SQ 2489** Monitoring of air pollutants (Total Organic Carbon, NO₂, NO, SO₂ CO₂, CO) in and around the premises of Bitumat plant at Dammam?. (One-month duration, project completed successfully in 1997).
47. **Principal Investigator, Client Funded Project# SQ 2378** Calibration of a Radiometer Model RX 1000 using UV radiations generated from frequency doubled YAG pumped dye laser" for Arabian Metal Company, Dammam (project completed successfully in 1996).
48. **Co-Investigator,, RI Project #12043. (Five years duration, 1992-1997).** Investigation of Laser Excited Alkaline Earth Metal Atoms".
49. **Principal Investigator, CAPS Project (1995- to 2005** Development of an Environmental Research Facility for the atmospheric pollution monitoring, leak detection across pipelines and for the trace gas analysis based on the photoacoustic (PA) techniques using lasers.
50. **Principal Investigator, CAPS Project (1999-to 2005).** Development of LIDAR (light detection and ranging) system for remote sensing of environment and leak detection across the oil/gas pipelines.

Invited Talks /Seminars/Presentations

1. **Invited Seminar**, Pulsed Laser Synthesis and Processing of Nano-Composites: Fundamentals and Applications, Mechanical Engineering – PSE division, King Abdullah University of Science and Technology (KAUST) Saudi Arabia (7 may, 2018).
2. **Keynote Speaker**, Synthesis of Novel Nano-Materials Using Pulsed Laser Ablation Technique For Dye Sensitized Solar Cells, Waste Water Treatment and Oil-Water Separation, NOOR 3rd, International Conference on Applied Materails and Nanodevices, key note speech, 14-16 Nov, 2017, Islamabad.
3. **Invited Speaker**, Pulsed Laser Based Synthesis of High Purity Nanomaterials for Clean Water and Clean Energy Applications, The 4th Saudi International Nanotechnology Conference (SINC 2016) Dhahran 25-27 Oct, 2016.
4. **Invited Speaker**, Synthesis of Colloidal Nanocrystal Based Nanocomposites Semiconductors for Photonic Applications Using Advanced Pulsed Laser Ablation in Liquids Technique, Seventh International Conference on Optical, Optoelectronic Photonic Materials and Applications, Polytechnique Montreal (13-18 June 2016) Canada.
5. **Invited Speaker**, Fabrication of Robust Super-Hydrophobic/hydrophilic Surfaces Using Pressurized Spray Gun and Layer By Layer (LBL) Coatings and their Applications, invited talk, International Conference on Physics and Chemistries at Hydrophobic Interfaces. KAUST, Thawal, Saudi Arabia (14 - Feb 17, 2016).
6. **Invited Speaker**, Synthesis and Photoluminescence Studies of Quantum Dots For Photonic Applications Using Pulsed Laser Ablation in Liquids, invited talk, 17th Photonics North, Ottawa (9-11th June 2015) Canada.
7. **Invited Speaker**, Physics of Self-Cleaning Surfaces (Coatings & Textures) and Their Novel Applications, FSIMFP2015 — Fourth Saudi International Meeting on Frontiers of Physics Jazan, (17-19 Feb 2015).
8. **Invited Speaker**, An Overview of Dye Sensitized Solar Cells and their Energy Harvesting Applications, 3rd International Conference on Nanotechnology/ Nanophotonics, King Abdullah City for science and Technology, Riyadh (1st -3rd December, 2014).
9. Recent trends in waste water treatment using nano materials and advanced oxidation process with laser and solar radiations, Mechanical Engineering Department, MIT Cambridge USA (June 14, 2013).
10. Fabrication of hydrophobic surfaces (films and textures) using pressurized spray gun and their novel applications, Physics Department, KFUPM (24th February, 2013).
11. Synthesis of Nano Alloys and Nano Composites Using Pulsed Laser Ablation in Liquids, Physics Department, KFUPM (11th November, 2012).
12. **Invited Speaker**, Synthesis of nano-engineered materials and fabrication of hydrophobic and hydrophilic surfaces (textures) for waste water treatment, Mechanical Engineering Department, KFUPM (13th November, 2012).
13. Latest Developments in Cancer Treatment using Photodynamic Therapy in Conjunction with Photocatalysis Process and Novel Nano Engineered Materials under Laser Irradiation, Physics Department, KFUPM (19th Febraury, 2012).
14. **Invited Speaker**, Laser Induced Photo-Catalysis and its Application in Waste Water Treatment, Center of catalysis, King Abdullah University of Science an Technology (KAUST) Saudi Arabia (7th June 2011).
15. **Invited Speaker**, Characterization of Nano Materials Using Laser Induced Breakdown Spectroscopy, National Center for Physics (NCP), Islamabad Pakistan (July 21, 2011).
16. **Invited Speaker**, Treatment of Malignant Tumors using Novel Nano Engineered Photocatalysts and Laser Radiations, Research Institute, King Faisal Specialist Hospital, Riyadh (Nov 9, 2011).
17. **Invited Speaker**, Laser induced photocatalysis for production high value hydrocarbons and hydrogen, National Center for Physics (NCP), Islamabad Pakistan (July 25, 2011).
18. **Invited Speaker**, Advanced technologies for Waste water treatment, Institute of Environmental Sciences and Engineering (IESE), National University of Science and Technology (NUST), Islamabad (July 27, 2011).
19. **Invited Speaker**, Cancer treatment using Photodynamic therapy supplemented by photo-catalysis process, Pakistan Institute of Engineering & Applied Sciences (PIEAS) Islamabad (29 July, 2011).
20. New Technologies for Waste Water Treatment using Nano Structured Materials and Laser, Physics Department, KFUPM (17th April, 2011).
21. **Invited Speaker**, Laser Applicatios in Nanotechnology, Environmnetal Monitoring and Materail Characterization, Institute of Engineers, Student Chapter, KFUPM, (25th May, 2011).
22. **Keynote Speaker**, “36th International Nathiagali Summer College (INSC), on **Photovoltaic’s**” (4-8th July, 2011) Pakistan.

23. **Invited Speaker**, Growth of Oxide nanoparticles using Pulsed Laser Ablation (PLA) Technique, International Conference on Oxide-based Materials and Devices II, (Conference OE108, OPTO SPIE West), Photonic West, The Moscone Center, San Francisco, California United States 22 - 27 January 2011.
24. **Key Note Speaker**, International Conference on Chemistry in Industry (CHEMINDIX 2010), Manama, Bahrain (October 25-27,2010).
25. Assessment of Reinforcement Corrosion Using Laser Induced Breakdown Spectroscopy ,technical dinner meeting Saudi Engineering council,Al-khobar (21st May,2011).
26. Laser Research Activities at KFUPM, Physics Department,KFUPM (27th April, 2010),Dhahran
27. Laser Induced Photocatalysis for Removal of Sulphate Reducing Bacteria, Saudi Aramco (8th June, 2010).
28. Laser Induced Breakdown Spectroscopy and its applications, Laser Group, Institute of Chemical Process Fundamental, Czeck Academy of Sciences, Prague, Czeck Republic (22.11.2010)
29. Synthesis of nanostructured metal oxides like ZnO using pulsed laser ablation in liquids Laser Group, Institute of Chemical Process Fundamental, Czeck Academy of Sciences, Prague, Czeck Republic (23.11.2010).
30. **Key Note Speaker**, International Conference and Exhibition Laboratory Technology , 2009 Kuwait, November 4-5, 2009.
31. **Key Note Speaker**, workshop on Laser Applications in Chemical Analysis and Oil Industry (27-28 April ,2008) Khartoum, Sudan.
32. **Distinguished Invited Speaker**, Laser Conference organized by World Academy for Laser Applications (WALA) Bahrain International Exhibition Centre. October 19-21, 2009.
33. The 4th International Symposium on Non-Crystalline Solids and The 8th Brazilian Symposium on Glass and Related Materials, Aracaju, SE, Brazil (Oct 19-26, 2007).
34. **Key Note Speaker** , 9th Symposium on analytical and environmental Chemistry, Baragali , Pakistan (July 24-26,2006).
35. Invited Talk, Fundamentals of Laser Induced Breakdown Spectroscopy, Women Degree College, King Faisal University, Dammam, January 25, 2009.
36. How to Improve Research and Development Program at University Level, Physics Department, March 16, 2008.
37. Laser based analytical techniques for various applications, Chemistry Department, ARARAQUARA, SP. **Brazil**, Oct 17, 2007.
38. Elemental analysis using Laser Induced Breakdown Spectroscopy, Chemistry Department, KFUPM, Nov 4, 2007.
39. Laser based sensors and their application, Physics Department, KFUPM, Nov, 2006.
40. Laser induced Breakdown Spectroscopy and its Applications in Environment, Geology, Petroleum, Steel and Mining industries, Phys Deptt, King Abdul Aziz University **Jeddah**, 29.3.2006.
41. Effect of industrial pollution on environment and advanced optical techniques, Earth Science Department, KFUPM, 20 December, 2005.
42. Lecture Series on pollution (solid, liquid and gas) Monitoring using lasers , Institute of Environmental Sciences and Engineering, National University of Sciences and Technology., Rawalpindi, **Pakistan**, 7-11 November, 2005.
43. Laser application in environmental Sciences, Physics department, KFUPM, 24.September, 2005
44. LIDAR Monitoring Of Aerosols For Prediction Of Boundary Layer Heights, Phys Department, King Saud University, **Riyadh**, 7th June 2005.
45. Environmental issues and need for advanced (laser based) air monitoring techniques, Mechanical Eng. Deptt, KFUPM, 30th March 2004.
46. Global warming and its effects on humans, forest and climate, American Chemical Society Meeting, Gulf Meridian, **Alkhobar**, September 2004
47. Laser based photoacoustic spectrometry and its applications, Phys Deptt, KFUPM, 28th March, 2004.
48. Laser-induced Desulfurization of Oil and other aromatic compounds, Saudi Aramco January, 2004 & June 2005.
49. Laser production of high value hydrocarbons and high value organic products from petrol residue, Saudi Aramco, March 2003.
50. Methane Cracking for the production of higher hydrocarbons on 28 April 2003 at the LRS, CAPS, RI, KFUPM.
51. Detection of SF₆ leaks in power systems using laser on 12 May 2003 at the LRS, CAPS, KFUPM.

52. Photoacoustic Spectroscopy for Trace Gas Analysis and Gas Leak Detection, Physics Department, Free University Berlin, **Germany**, 17.7.2002.
53. Lasers and their applications in every day life, Electrical Engineering Department, King Abdul Aziz University, **Jeddah**, Saudi-Arabia, 24.10. 2001.
54. Laser remote sensing and its applications in environment, agriculture and metrology, Air and Waste Management Association USA (Saudi-Section) Dhahran International Hotel, 23.1.2001.
55. Laser sensors applications in agriculture, oil and industrial pollution Joint seminar R.I and Mechanical Engineering Department, KFUPM, 3.10 2000.
56. Light detection and ranging (LIDAR) system, Institute of Applied Physics, University of Bonn, **Germany**, 19.7.2000.
57. Photoacoustic sensor for insitu detection of leaks in power systems, to the technical experts from SCECO Central, Riyadh and SCECO West, **Jeddah** on 17.10 2000.
58. Development of remote laser based sensors for environmental applications, center for Applied Physical Sciences, R.I, KFUPM, 15.2. 1999.
59. Applications of laser sensors for atmospheric studies, Applied Physics Deptt, Victoria University, Melbourne, **Australia**, 8.8.1997
60. Laser Remote Sensing and its Applications, Joint seminar R.I and Physics Department, KFUPM, 4.5 1997
61. Laser Applications in Medicine, King Fahd Teaching Hospital, **Alkhobar**, Saudi-Arabia. 25. 6. 96.
62. Oil and Gas Exploration using Laser Remote Sensors”, Saudi-Aramco, Dhahran, Saudi-Arabia, 30. 6. 96
63. Multi-step Excitation of Autionizing States and Role of Collisions in Ca-vapor”, Center for Laser and Applications, Macquire University, Sydney, **Australia**, 21. 2. 96
64. Collisional energy transfer of laser excited metastable Ca atoms and excitation of ionic states of calcium, Physics Department, University of Kaiserslautern, **Germany** (8.8.1995).
65. Large scale collisional energy transfer in optically prepared atomic states of calcium, Institute of Applied Physics, University of Bonn, **Germany** (28.7.1995).
66. Collisional excitation of 4p 2p states of Ca II in resonant excitation of CaI states, Institute of Physical chemistry, University of Heidelberg, Germany (24.8.1995).
67. Energy transfer in laser pumped calcium vapor, International Center for Theoretical Physics (ICTP), Trieste, **Italy** (21.7.1995).
68. Environmental applications of lasers", Division-II, R.I. Seminar was presented to experts from National Environmental Preservations Co. (BeeA'h). (31.10.1994).
69. Laser induced fluorescence studies of agricultural plants using lasers", Division-III, R.I., KFUPM (25.1.1994).
70. Laser remote sensing of leaks in gas pipelines, Division-II, R.I., KFUPM (30.11.1993).
71. Study of diffuse bands in alkali dimers", Division-II, R.I., KFUPM (28.1.1992).
72. Diode laser and its applications", Division-II (Proposal Seminar at Managerial Level) (February 1993).
73. Single photon excitation studies of new diffuse bands in Na₂ and Li₂ dimers using 351nm (XeF) and 337 nm (N₂) excimer laser, International Center for Theoretical Physics(ICTP), Trieste, **Italy** (18.6.90).

Proposals, Technical Discussion Papers and Reports

1. All proposals written and accepted as mentioned under section research leadership and research projects
2. Development of Improved Dye Sensitized Solar Cells with Nanosturctured Pure, Doped and Composite Semiconducting Materials submitted to NSTIP(2014).
3. Synthesis of Crystalline Semiconductor Nanostructures using Pulsed Laser Ablation Technique, submitted to NSTIP 9th cycle(2013).
4. Carbon Dioxide Conversion Into Value-Added Hydrocarbons Over Highly Active and Economic Catalysts In Photochemical And/Or Electrochemical Reduction Process Enhanced By Photo-Catalysis Trilateral joint proposal with KAIST-ARAMCO-KFUPM (2012).
5. Laser induced photocatalytic removal of organic pollutants from water using nano structured metal oxides, Joint proposal with National Universioty Singapore & KFUPM (2012)
6. Comparison of Detection Sensitivities of Prompt Gamma-Ray Neutron Activation Analysis and Laser Induced Breakdown Spectroscopy Techniques for Analysis of Toxic Elements Ag, Br, Cd, Cr, Cl, Gd, Hg, Ni and V in Liquid and Solid Samples submitted to DSR,KFUPM (2012).
7. Development of highly efficient visible-light-driven mesoporous nanostructured materials for photocatalytic applications, submitted to NSTIP (2013)

8. Lanthanide-doped Oxide Nanoparticles Multi-modal Molecular Imaging Agents submitted to NSTIP (2011).
9. Synthesis of Nano Structured Composites and Their Application in Elimination of Methyl Tertiary Butyl Ether (MTBE) From Water, submitted to NSTIP(2011).
10. Synthesis and Optical Characterizations of Hybrid Nano-Structures Using Advanced Laser based Techniques, submitted to DSR, KFUPM(2011).
11. Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts submitted to DSR, KFUPM (2010).
12. M. A. Gondal, M. A. Ali, and M.A.Dastager (Feb, 2012), CO₂ Conversion into Hydrocarbons using Nano-Structured multi-metallic Catalysts, submitted under 6th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
13. M. A. Gondal, M. A. Ali, and M.A.Dastager (2011), Synthesis of n- and f-doped TiO₂ photo-catalyst for hydrogen production under visible light irradiation, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
14. A. A.Isab, M.A. Gondal, M. I. Wazeer, S.Altuwaijri(2011), Comparative study of self synthesized nano structured and micro structured gold complexes as anticancer agents, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
15. M.H. masoudi, M.A. Gondal, J.Pola (2011), Laser gas-phase deposition of unique Ge/C and Te/C nanocomposites, submitted under 5th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
16. M.A. Gondal, M.A. Ali, Z.H. Yamani and M.A.Dastager (2011), Synthesis of nano-structured metal oxides films using Pulsed Laser Deposition Technique for various applications in waste water treatment and CO₂ conversion into chemicals, submitted under 4th National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh.
17. A.J. Alzharani, M. Akram, M. A Gondal and N. Aqeeli (2009) Applications of Nano-Particulated Amphotericin-B, Fluconazole and thymoquinone Candida Albicans and Candida Biofilm, submitted to KACST.
18. M. H. Shwehdi, M. A. Gondal A. Mashat M. Hashem T. R. Sheltami E. Williams, Lidar-Tracking and Electrification of Dust-Lofting Gust Fronts in Saudi Arabia submitted to National Plan for Science and Technology Innovation (NPSTI) General Secretariat Riyadh .
19. M. A. Gondal N. Aqeeli, Z.H.Yamani (KFUPM) and team from MIT (2009), Waste Water Treatment by Using Novel Materials (Nanophoto-Catalysts) and Lasers, submitted to Center of Excellence MIT and KFUPM Collaboration.
20. M.N. Siddiqui, K. Hooshani and M.A. Gondal (2009) Development of Technologies For Deep Desulfurization of Fuel Oils, submitted to KACST.
21. Z. Seddigi, M.A. Gondal, A. Baqabas and S. Fadal (2009) Removal of organic pollutants from water using Heterogenous photocatalysis Technique submitted to KACST.
22. M.A. Gondal, Z.H. Yamani (2008) Pulsed Laser Ablation for Synthesis of Nanostructured ZnO and ZnO₂ submitted to University Research Committee, KFUPM.
23. M.N. Siddiqui and M.A. Gondal (2008) Removal Of Methyl Tertiary Butyl Ether (MTBE) From Water Using Laser Based Photo-Oxidation Process, submitted to University Research Committee, KFUPM.
24. M.A. Gondal, Z.H. Yamani, Z. Ahmad, T. Louai, N. Siddiqui, S. Al-Quraishi (2008) Applications of Nanoscale Materials Using Laser Induced Photo-Catalytic Process: (Purification Of Air & Water, Corrosion Inhibition) submitted to KACST and Center of Excellence and Technology
25. M.H. Shwehdi and M. A. Gondal, Proposal # IP 2008/35 entitled: Identifying the Causes of Saudi Arabia Low Voltage Cables Outages by Applying Explicit Measures and Laser Induced Breakdown Spectroscopy (LIBS) to DSR
26. M.A. Gondal, Z.H. Yamani, A. Khaleel (2008) Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts, submitted to KACST (approved).
27. M.A. Gondal, Z.H. Yamani, N.Siddiqui and J. Pola (2007) Decomposition Technology For Low Concentration Nitrous Oxide using Lasers, Nine Sigma, USA.
28. Al-Jalal, M. A. Gondal, E. Heghazi, Khan, et al (2007), Establishment of Center of excellence for lasers and their applications submitted to Ministry of Higher Education Riyadh.

29. H.M. Masoudi, M. A. Gondal, E. Heghazi ,J. Pola and M. A. Alodan (2006) Laser Approach to Metal Nanoalloys, Its Optimization & Search for Novel Alloy Nanostructures materials submitted to KACST and University Research Committee
30. Z. H.Yamani and M. A. Gondal (2006) Development of laser induced breakdown spectrometer for trace element analysis, Proposal submitted to URC for Internal funded project.
31. M. A. Gondal, Z. H. Yamani, Al_Arfaj, M. Nazeer (2006), Laser induced photocatalytic degeradation of phenol using semiconductor catalysts, submitted to URC for SABIC grants.
32. S. M. Fortia, A. J. Al- Saati, **M.A. Gondal** and M. Schwehdi, Investigation of Noise and Air Pollution Effect on Urban Developments in Saudi Arabia, submitted to KACST(2004)
33. M. A. Gondal, Z. H. Yamani (2004), Laser Sensor for Detection of Ozone, submitted to URC for SABIC grants.
34. M. A. Gondal, Al_Arfaj, Z. H. Yamani, A. Mubarik and Dastageer (2004), Laser desulfurization of crude oil, Proposal# Caps 2229, Saudi Aramco (1.83 millions Riyal)
35. M. A. Gondal, Al_Arfaj, Z. H. Yamani and A. Hameed (2003), Laser induced conversion of CH₄ into high value hydrocarbons using photolysis and photo-catalysis processes, Proposal # AT-23-17 submitted to KACST for General Research Grants.
36. M. A. Gondal, Al_Arfaj, Z.H. Yamani, A.Mubarik and A. Hameed (2002) Photocatalytic Conversion Of Methane into Methanol Using Laser, Proposal # Sabic 2002/01 submitted to URC for SABIC Grant (accepted and project has started on 16.12.2002 and completed 30.6.2005).
37. Gondal, M. A., M. Schwehdi, A. Baig (2000), In situ detection of SF₆ leaks in power systems using laser, Proposal# 55 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000 and will end by 31.8.2002)
38. Al_Arfaj, M.A. Gondal, Z.H. Yamani and A. Ali (2000), Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, Proposal # 50 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000)
39. M.A. Khan, M. A. Gondal, M. S. Hussain and A. Baig (2000), Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, Proposal# 58 submitted to URC for SABIC Grant (accepted and project has started on 1.10.2000).
40. Gondal, M. A., F. F. Al-Adel, S.M.A. Durrani and I. A. Bakhatiari (1998), Development of laser based remote sensors for environmental studies, Proposal # PN12063 submitted as internal project to RI (accepted and project start date 1. 9.2000).
41. Gondal, M. A., M. H. Masoudi, S.M.A. Durrani and I. A. Bakhatiari (1998), Laser remote monitoring of industrial pollution; Proposal # 32069 submitted as external project to KACST (project not approved and encouraged to resubmit).
42. Gondal, M. A., Al-Arfaj, S.M.A. Durrani and I. A. Bakhatiari (1998),
43. Remote analysis of environmental trace elements in soil and aqueous solutions using laser induced breakdown spectroscopy (LIBS), Proposal # ms-4-17, submitted to KACST.
44. Khan, M.A., Gondal, M. A. , S. Al-Kabi, Y. Nassar, A.K. Azad, A. Baig (1998),
45. Laser-based techniques for non-contact inspection of concrete, Proposal # 32067 submitted as external project to KACST.
46. M.A. Gondal (1995). Photoacoustic trace gas analysis using CO₂ and Nd: YAG laser, Proposal # WS412 PR, Deutsche Akademisch Austausch Dienst, Bonn, Germany (project approved and was financed for one month visit to Germany).
47. Khan, M.A., Gondal, M. A. and M.H. Rais. (1991). Investigation of some laser-excited alkaline earth metal atoms. Proposal # 12043, RI, KFUPM
48. M. A. Gondal, Laser production of high value hydrocarbons and high value organic products from petrol residue; Technical Discussion Paper # TM/CAPS/01/03 submitted to Saudi-Aramco.
49. M. A. Gondal, Laser Desulfurization Of Crude Oil; Technical Discussion Paper # TM/CAPS/02/03 submitted to Saudi-Aramco.
50. M.A. Gondal, R. A. Nassar, Development of novel method for removal of sulfate reducing bacteria (srb) and control of norm Technical Discussion Paper # TM/CAPS/01/04 submitted to Environmental Section, Saudi-Aramco.
51. M. A. Gondal, Photocatalytic conversion of methane, Technical discussion paper # TM/CAPS/09/01 submitted to SABIC and Saudi-Aramco.

52. M. A. Gondal, Methane Cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process. Technical discussion paper # TM/CAPS/02/00 submitted to Saudi-Aramco, SABIC, Petrochemica.
53. M. A. Gondal ,In situ detection of SF6 leaks in power systems using laser. Technical discussion paper # TM/CAPS /01/00 submitted to Saudi-Aramco, SABIC, SCECO East, SCECO West and SCECO Central
54. M. A. Gondal, Laser remote monitoring of industrial pollutants and atmospheric gases. Technical discussion paper # TM/CAPS/03/00) submitted to different companies such as Saudi-Aramco, SABIC, SCECO, MEPA, Petrochemica, National Environmental Preservation Company (BeeA'h).
55. M. A. Gondal, Al_Arfaj, Z.H. Yamani, A.Mubarik and A. Hammed (2004) Two semi-annual and Final Reports of project #SABIC 2002/01 Photocatalytic Conversion Of Methane into Methanol Using Laser, submitted to URC for SABIC .
56. Gondal, M. A., M. Schwehdi, A. Baig (2002), Final & two semi-annual Reports of project #FT 2000/14, In situ detection of SF6 leaks in power systems using laser, Proposal# 55 submitted to URC for SABIC
57. Al_Arfaj, M.A. Gondal, Z.H. Yamani and A. Ali (2002), Final & two semi-annual Reports of project #SABIC 2000/12 Methane cracking for production of higher hydrocarbons and hydrogen using selective laser excitation process, submitted to URC for SABIC
58. M.A. Khan, M. A. Gondal, M. S. Hussain and A. Baig (2002), Final & two semi-annual Reports of project #SABIC 2000/11 Laser photolysis–glow discharge hybrid system for regeneration of ‘coked’ zeolite catalysts, submitted to URC for SABIC Grant
59. Gondal, M. A., Aftab Ahmad (1997). Final Report: Project # SQ 2489, Detection of air pollutants at Bitumat plant, Dammam
60. Gondal, M. A., Aftab Ahmad (1996). Final Report: Project# SQ 2419 Monitoring of toxic volatile organic compounds at Yanbu Petrochemical Complex (YanPet) under SABIC.
61. Gondal, M. A. and E. Heghazi (1996). Final Report: Project #SQ 2378 , "Calibration of a Radiometer Model RX 1000 using UV radiations generated from frequency doubled YAG pumped dye laser"
62. M.A. Gondal (1995). Final Report on Photoacoustic trace gas analysis using CO2 and Nd: YAG laser, WS412 PR, Deutsche Akademisch Austausch Dienst, Bonn, Germany (project approved and was financed for one month visit to Germany)
63. Khan, M.A., Gondal, M. A. and M.H. Rais. (1995). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #5, Project No. 12043, RI, KFUPM.
64. Khan, M.A., Gondal, M. A. and M.H. Rais. (1994). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #4, Project No. 12043, RI, KFUPM.
65. Khan, M.A., Gondal, M. A. and M.H. Rais. (1994). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #3, Project No. 12043, RI, KFUPM.
66. Khan, M.A., Gondal, M. A. and M.H. Rais. (1993). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #2, Project No. 12043, RI, KFUPM.
67. Khan, M.A., Gondal, M. A. and M.H. Rais. (1993). Investigation of some laser-excited alkaline earth metal atoms. Semi-Annual Report #1, Project No. 12043, RI, KFUPM.
68. M.A. Gondal, A. Majeed and M. Tahir. (1991). Theoretical and experimental aspects of Nd: YAG laser. Final Report LS-IR-5. Post Graduate Center for Electro-Optics, Tripoli.
69. M.A. Gondal, S. Shahdin and J. Shebani. (1986). Development of new lasing media for CO2 laser based on electrochemical transformation (ECTO) of organic compounds. Final Report LS-IR-3. Post Graduate Center for Electro-Optics, Tripoli.
70. Shahdin, S. and Gondal, M. A. . (1985). Development and operation of heat pipes for generation of vapors up to 900°C. Final Report LS-IR-1. Post Graduate Center for Electro-Optics, Tripoli.
71. Shahdin, S., Gondal, M. A. and F.M. Mansouri. (1985). Development of software for calibration and analysis of spectra using an optical multichannel analyzer. Final Report LS-IR-2. Post Graduate Center for Electro-Optics, Tripoli.

Short Courses/workshops Offered

- Assessment and Repair of Reinforced Concrete Structures: Principles and Applications, Laser Sensor, KFUPM. (May 10-14, 2008, 2009,2010,2012,2014,2016,2017).
- Practical Considerations for Insulation and Cables Materials and their Characterization Using Laser induced breakdown spectroscopy (LIBS) Techniques, KFUPM (July, 5- 9, 2008).

- Lasers and their applications held at LRS (2001), CAPS, KFUPM. The course covered the basic principles of lasers, types of lasers, operation & routine maintenance of lasers, laser safety, as well as many applications in engineering, industry, environment, medicine and agriculture (November 27 – 01st December 1999)
- Recent advancements in air pollution monitoring & control held at Institute of Environmental Sciences and Engineering, National University of Sciences and Technology (NUST), Rawalpindi, Pakistan. The course covered the important issues concerning global warming, ozone depletion, acid rain, photochemical smog, forest decline and state of the art advanced techniques for air pollution monitoring such as LIDAR, Photoacoustic spectroscopy, Laser Induced Breakdown Spectroscopy(LIBS) and their applications as well as the latest techniques for control of air pollution at industrial complexes. (September 8-9, 2003 (delivered five lectures).
- Workshop on environmental issues and air monitoring techniques, Institute of Environmental Sciences and Engineering, National University of Sciences and Technology (NUST), Rawalpindi, Pakistan (January 7-9, 2003).
- Work shop on awareness of environmental(water, air) problems in Pakistan, Global environmental problems, green house effect, ozone depletion and acid rain formation, toxic air pollutants and their safe permissible limits and laser based techniques developed at KFUPM (Total six lectures + videos), National Engineering and Science Commission (NESCOM) Islamabad, Pakistan (23.8.2006).

Postdoc Supervision

- Synthesis of nano structured materials and their applications in waste water treatment using laser induced photocatalysis process, Dr. Qamar (2008-2010).
- CO₂ conversion into methanol using laser induced photocatalysis, Dr. K. Hayat (2010-2011).
- Remediation of Water Produced in Resource Extraction, Dr. U. Baig (2014-2016)
- Synthesis of nano engineered materials for various applications, Dr. Talal Farhan Qahtan (2017-2019)

Ph.D. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role	Papers Published
1.	Talal F Qahtan Physics Dept, KFUPM	Synthesis of wetting and non wetting surfaces for oil water separation	2015	Completed Jan 2018	Advisor	4
2.	Rasha Abdurabu S. AbuMusa Physics Dept, KSU Riyadh	Synthesis and applications of Nanocomposites Photocatalysts for treatment of Cancer Cell lines under Light irradiation	2016	Completed May 2018	Co-advisor	3
3.	M. Taureed Physics Dept, KFUPM	Calibration-free LIBS using Multivariate Hybrid Chemo-metrics: An Approach for Precise Quantitative Elemental Analysis of Solid Samples	2016	Completed May 2018	Advisor	5

4.	Wafa Musa Al-Mujamammi Physics Dept, KSU Riyadh	Excited state dynamics of some conjugated polymer lasers	2016	Completed Decemebr 2017	Thesis reviewer and external examiner	-
5.	Muhammad Younas Physics Dept, KFUPM	Fabricaion of perouskite and dye sensitized solar cells	2016	Under progress	Advisor	1
6.	Yakubu Sani Wudil Physics Dept, KFUPM	Fabrication of thermoelectric films using Pulased laser depsoition (PLD) system	2017	underprogress	Advisor	1 Under preparation
7.	Hasan Physics Dept, KFUPM	Fabrication and characterization of symmetric and asymmetric super capacitors using novel electric field assisted pulsed laser ablation in liquid technique for the first time	2018	underprogress	Advisor	1 under preparation
8.	Saeed Baqaraf	Laser based fabrication of superhydrophilic patterns for nanoparticles self assembly and its applications	2018	underprogress	Advisor	Just started
9.	Luqman Oloore	Effect of UV-light responsive TiO ₂ - based electron transporot layer on stability of Lead halide Pervoskite solar cells	2018	underprogress	Advisor	Just started
10.	M.Naseer, ME Deptt, KFUPM	Multi Criteria Design Optimization and Control of Community Scale Photo Voltaic Reverse Osmosis Water Desalination	2012	Decemeber, 2014	Thesis Committee Member	3

		System				
11.	S.S.Al-Jaroudi, Chemistry Deptt, KFUPM	Synthesei,characterization and evaluation of Anticancer Activities of some gold complexes with Diamine Phosphine and Dithiocarbamate Ligands	2012	2014	Thesis Committee Member	3
12.	Noura Suleman, Physics Dept, College of Science, King Faisal University , Dammam, Saudi Arabia	Simulation Study of Laser Induced Fluorescence Spectra of Diatomic Molecules	2008	2011	Advisor	5
13.	Tawfik Abdo Saleh Chemistry Department, KFUPM	Synthesis of carbon nanotube based composites and thier applications	2010	2012	Co advisor	7
14.	S. Ghadeer Physics Dept,College of Science, King Faisal University , Dammam, Saudi Arabia	Theoretical and experimental aspects of laser induced breakdown spectroscopy	2008	2011	Advisor	2
15.	Mohammed Mahdi KFUPM and Natural Science Departments, Riyadh College of Dentistry and Pharmacy P.O. Box 321815 Riyadh 11343, Saudi Arabia	Plasma Diagnostics using LIBS and its Applications in environmental samples analysis	2008	2011	Advisor	7
16.	Khizar Hayat Chemistry Department, KFUPM	Synthesis of nano structure materials and applications in laser induced photo-catalysis	2008	2011	Co- Advisor	7
17.	M. Atif Chemistry Department, KFUPM	Synthesis of new binuclear Cu I mixed legend dye amine phosphine complexes and their applications	2007	2010	Committee Member	2

18.	T. Hussian KFUPM and National University of science and Technology (NUST) Rawalpindi Pakistan	Trace elemental analysis using Laser induced breakdown spectroscopy for liquids and solid waste samples	2006	2008	Advisor	12
19.	A. Hameed Chemistry Department, KFUPM	Applications of Photo- catalysis in conversion of methane into methanol using laser	2003	2005	Co- Advisor	11
20.	Biswanath Mitra Applied Physics, Victoria University, Melbourne Australia	Remote detection of laser generated ultrasonic by fiber optic Interferometer	1996	1999	External Examiner	3

M.S. Thesis Supervision

S. No.	Student Name and Department	Thesis Title	Start Date	End Date	Role	Papers Published
1	Lutfi Mulyadi Surachman	Development of laser- induced breakdown spectroscopy technique for analysis of fish samples collected from the Arabian Gulf	2016	2018	Advisor	1
1	I. K. Poppola, Phys KFUPM	Design and fabrication of Perovskite solar cells	2016	-	Advisor	2
2	Abu Lais, Phys KFUPM	Advanced materials for carbon dioxide reduction into high value products	2016	-	Advisor	3
3	Mohsin Sarwar, Phys KFUPM	Detection of heavy metals in human tissues using Laser induced breakdown spectroscopy	2016	-	Advisor	1
4	REDHWAN ABDO MOQBEL Phys KFUPM	Synthesis and characterization of GaAs and other semiconducting materials using PLAL technique	2016	-	Advisor	1
5	M. ALTAHIR SULIMAN, Chem. KFUPM	Facile synthesis of metal oxide nanocrystals for removal of pesticides and herbicides from water	2015	-	Co-advisor	1
6	Abduliken Bake	Fabrication of dust repellent surfaces and their characterization	2016	-	Co-advisor	1
7	Adesida Kollopu, Chem.	Synthesis and characterization of graphitic	2014	2015	Advisor	2

	KFUPM	carbon nitride (g-C ₃ N ₄) based nanostructured composites removal of organic pollutants from water				
8	Y.Habibullah, Phys KFUPM	Laser induced breakdown spectroscopy applications for analysis of food products	2014	2016	Advisor	6
9	A.M.Ilyas, Phys KFUPM	Dye sensitized solar cells using self synthesized nano semiconductor materials	2014	2015	Advisor	4
10	F. Tasnim, Phys KFUPM	Synthesis and characterization of unique nanomaterials using pulsed laser ablation in liquids	2014	2015	Advisor	2
11	L.Oloore, Phys, KFUPM	Synthesis of nanocatalysts for CO ₂ conversion into high value hydrocarbons like methanol	2015	2015	Advisor	4
12	Yasin Maganda, Physics Department KFUPM	Analysis of cosmetic products using self developed time resolved ICCDLaser induced breakdown spectrometer	2013	2013	Advisor	5
13	Talal Al-Qahtan, Physics Department KFUPM	Synthesis of nano alloys using pulsed laser ablation of organometallics	2013	2013	Advisor	7
14	Sadullah Subki, Physics Department KFUPM	Synthesis of hydrophobic and hydrophilic surfaces using spray gun	2014	2013	Advisor	2
15	A.J. Al-Nehmi, Civil Engineering Department KFUPM	Assessment of Chloride and Sulfate Concentration in Concrete Using Laser-Induced Breakdown Spectroscopy (LIBS)	2010	2012	Co-Advisor	5
16	Ahmed Waseem Viqas, EE Department KFUPM	Plasmon-enhanced white light generation in phosphor based GaN LEDs	2014	2013	Committee Member	2
17	S.S. Rashid, EE Department KFUPM	Active plasmonic: surface modulation	2013	2011	Committee Member	2
18	A. M. H.Y. Hendi, Physics Department KFUPM	Synthesis and characterization of Bi ₂ O ₃ nano-powder produced by microwave-assisted combustion method	2012	2012	Committee Member	2
19	T.Al-Ali, Physics Department, King Abdul Aziz University, Jeddah,	Laser induced breakdown spectroscopy studies of plastic waste samples	2011	2012	Reviewer and External Examiner	-
20	K. Drmoosh, Physics Department KFUPM	Synthesis of nano structure metal oxides using laser ablation process	2008	2010	Advisor	8
21	Mr. A. Al-Aswad, Physics Department KFUPM	Fabrication of heat mirrors using electron beam evaporation method	2007	2008	Committee Member	2

22	Mr. M.N. Sayeed, Chemistry Department, KFUPM	Laser induced phenol degradation using semiconductor catalysts	2006	2007	Advisor	5
23	Mr. Rizwan Qureshi, Physics Department KFUPM	Study of Energy Transfer in Highly Excited States of Ca through Thermal Collisions with Ar	1995	1996	Committee Member	2
24	J. M. Mohammed Al-Maraschi, Department of Physics and Astronomy, King Saud University Riyadh	Generation of Discretely tunable lasers form some gases and liquids using stimulated Raman scattering(SRS)	2005	2006	Reviewer and External examiner	-
25	Ali Mohammad Alshehri, Department of Physics and Astronomy, King Saud University Riyadh	Quantitative elemental determination of industrial alloys by Laser Indused Breakdown Spectroscopy (LIBS)	2005	2006	Reviewer and External examiner	-
26	Reem Al-Tuwirqi, Physics Department, King Abdul Aziz University, Jeddah	Spectroscopic Analysis of Some Diatomic Molecules	1995	1996	Reviewer and External examiner	-
27	Ibrahim A. Al- Hadhoud i. Physics Department, King Abdul Aziz University, Jeddah	Comparative study of empirical internuclear Potential Functions of some diatomic molecules	1996	1997	Reviewer and External examiner	-
28	Nourh Ahmed Al- Sinay. Physics Department, King Abdul Aziz University, Jeddah	Calculations of Potential Energy Curves of Diatomic Molecules	1997	1998	Reviewer and External examiner	-
29	Ensaf Awda Al- Jaraddah, Physics Department, King Abdul Aziz University, Jeddah	Analysis and simulation of diatomic molecular spectra	2001	2002	Reviewer and External examiner	-
30	Amany Ali Al- Suraihi, Physics Department, King Abdul Aziz University, Jeddah	Comparative study of five parameter potential energy functions of diatomic molecules	2001	2002	Reviewer and External examiner	-
31	Mohammed Tawati, Electrical engineering Department, AL- Fateh University Tripoli, Libya	Experimental and Theoretical Studies of N ₂ Laser	1990	1991	Advisor	-
32	Jamal Shebani Eelctrical engineering	Small Signal Gain Measurements in a locally developed CO ₂	1989	1991	Co-Advisor	-

	Department, AL-Fateh University Tripoli, Libya, April 1991	Oscillator/Amplifier System				
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Senior and Capston Projects Supervision

S. No.	Title of Project	No of Students	Role	Semester
1	Fabrication and their UVdegradation of Crumb Rubber Coatings of Hydrophobic nature	2	Co-Advisor with Dr. M. Al-Aqeeli	151
2	Synthesis of Nano ZnO particles for light emitting diodes	4	Co-Advisor with Dr. M. Al-Sunaidi	Term 151/152
3	Design and Fabrication of Solar waste water treatment Unit Using Parabolic Collector (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 121/122
4	Design and Fabrication of Solar Water Disinfection Units Using Parabolic Collector (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 112
5	Design and Fabrication of Solar Water Disinfection Units Using Flat Plate Collectors (ME412)	3	Co-Advisor with Dr. A.K. Sheikh	Term 112
6	Design, and Fabrication, of a UV Water Treatment Solar Collect , ME411/ME412 - Senior Design Project II	3	Co-Advisor with Dr. A.K. Sheikh	Term 101 and Term 102
7	Laser induced Photocatalytic removal of phenol using ZnO, Course # Chem 409	1	Co-Advisor with Dr. N. Siddiqui	Term 092
8	Desulfurization of crude oil using laser induced phtooxidative process, Course # Chem 409	1	Co-Advisor with Dr. N. Siddiqui	Term 082
9	Quality Assessment of High Tension Electrical Cables using LIBS” Group of four senior students form EE department, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 082
10	Simulation study for quality Assessment of High Tension Electrical Cables under high temperature and humidity, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 082
11	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 411	4	Co-Advisor with Dr. Zaki. Ahmed	Term 071
12	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 411	4	Co-Advisor with Dr. Zaki. Ahmed	Term 071
13	Laser induced photo-catalysis for waste water treatment using TiO semiconductor catalyst, ME 412	4	Co-Advisor with Dr. Zaki. Ahmed	Term 081
14	Development of a novel setup for laser triggered high voltage electrical discharges using pulsed laser, EE 411	4	Co-Advisor with Dr. M.H. Shwehdi	Term 052
15	Laser Treatment of HVOF coated Inconel 625, ME 411	3	Co-Advisor with Dr. B.S. Yilbas	Term 042
16	Two Summer Training of Saudi Master student on Laser induced breakdown spectroscopy	1	Advisor	Term 031

17	Designing of experiment for measurement of evaporated front velocity during laser-metal piece interaction, ME 411	1	Co-Advisor with Dr. B.S. Yilbas	Term 021
18	Study of laser application for the surface treatment of mechanical component , ME 411	3	Co-Advisor with Dr. B.S. Yilbas	Term 011
19	Study of laser application for the surface treatment of mechanical component, ME 412	3	Co-Advisor with Dr. B.S. Yilbas	Term 012
20	Trace gas analysis and leak detection based on photoacoustic technique using CO ₂ laser, PHYS 407	1	Advisor	Term 011
21	Trace gas analysis and gas leak detection using photoacoustic spectroscopy, Student name: Fahd Al-Subahi	1	Advisor	Term 011

Teaching Profile:

As Physics Department has no Ph.D. program till 2013 (started in 2014) and also very limited students are available in Master program so most of the teaching load at Physics Department for professors is to teach basic service courses like General Physics (PYP 01, Phys 101 and Phys 102) in large lecture format (LLF). I have taught and developed several courses whatever were assigned to me by chairman Physics department. Since laser have many applications in various disciplines so in addition, I have carried out many senior and capstone projects for undergraduate students from various departments and supervised many master and Ph.D. thesis from various departments like Physics, Chemistry, Mechanical Engineering, Electrical Engineering Department, Women College Dammam and Other International Universities. The details of the Ph.D, Master and Senior Projects are described on earlier pages in the Resume. Followings courses were taught at KFUPM.

Semester	Course	Department
Fall 1993-94	Recitation -Phys.101 General Physics-I	Physics
Fall 1993-94	Phys.503 Experimental Physics	Physics
Fall 1993-94	Senior Projects (Phys.403)	Physics
Fall 1994-95	Phys.503 Experimental Physics	Physics
1995-96	Phys.610 M.S. Thesis	Physics
Spring 1998-99	Physics 102 Lab (four sections)	Physics
Fall 1999	Physics 102 Lab	Physics
Spring 1999-2000	Physics 101 Lab	Physics
Fall 2000-2001	Physics 101 Lab	Physics
Fall 2000-2001	Senior Projects (Mech.411) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001-2001	Senior Projects (Mech.412) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001	(Phys 403, Co-op summer training) Trace gas analysis using photoacoustic technique With CO ₂ laser	Physics

Spring 2003	Physics 102 Lab	Physics
Fall 2003	Physics 102 Lab	Physics
Spring 2004	Physics 102 Lab	Physics
Fall 2004 (041)	Physics 102 Lab(two sections)	Physics
Spring 2003	Physics 503 (experimental Phys. at MS level)	Physics
Spring 2004	Physics 503 (two different experiments)	Physics
Spring 2004	Senior Project (Mech.411) (Laser application in surface treatment)	Mechanical Eng.
Spring 2001 – Spring 2004	710 Ph.D. Thesis Laser Photocatalysis and its applications in removal of organic pollutants from water	Chemistry
Spring 2005(042)	Physics 102 (LLF+ Recitation 3 sections)	Physics
Summer 2005 (043)	Physics 102 (Recitation 3 sections)	Physics
Summer 2005(043)	Physics 102 (Lab), EE411	Physics,EE
Autumn 2005 (051)	Physics 102(LLF+ Recitation 3 sections)	Physics
Physics 503	Experimental Physics at MS level	Physics
Spring 2006 (052)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (052)	EE411	Elec.Eng.
Autumn 2006(061)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006	Term 061	Physics
Spring 2006 (062)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (062)	Physics (LLF+ Recitation 3 sections)	Physics
PYP 01 2006 (062)	Physics 503	Physics
Autumn 2007 (071)	Physics (LLF+ Recitation 3 sections) , Phys 102 Lab, Phys 503	Physics
Spring 2007 (072)	Physics (LLF+ Recitation 3 sections), Phys 102 Lab, ME 411	Physics Mechanical Engg.Dept.
Autumn 2008 (081)	Physics (LLF+ Recitation 3 sections)	Physics
Phys 102 Lab	Phys 503	Physics
Spring 2008	Phys 610 Master Thesis, Ph.D Thesis, Chem. 710 , EE411	Physics, Chemistry,EE
Spring 2008 (082)	Phys 102 Lab, Phys 503,EE411	Physics,EE
Spring 2008	Phys 610 Master Thesis, 2 Ph.D Thesis Chem. 710, Chem 409	Physics
Spring 2009 (092)	Physics (LLF+ Recitation 3 sections) Physics 10, Phys 101 Lab, Phys 503, Chem 409	Physics, Chemistry
Spring/autum 2010-2017	Physics 101, Physics 102	Physics

Spring 2014 -2017	Physics 503 Experimental Physics at MS, PhD Level.	Physics
Spring/autum 2014-2017	Phys 701, Special topic course in laser applications	Physics
Spring/autum 2014-2017	Ph.D Phys 711, 712, M.S Phys 610 Thesis (2014-2017) On average 8 students	Physics
Spring/autum 2014-2017	Physics 409	Physics
Spring/autum 2014-2017	Physics 599	Physics
Spring/autum 2014-2017	Physics 699	Physics
2017 autum	MEPH 599	Physics

Courses taught at Post Graduate Center For Electro-optics Tripoli

Year

1986
1987
1988
1989

Graduate Level Courses

Laser Systems and their Applications
Atomic Physics
Molecular Physics
Laser Physics

Research Leadership and Development of Laboratories

I have developed excellent research leadership skills, which is evidenced through patents, number of publications, quality of publications, research proposals, and science citations and applied research projects. Three of my recently published papers have been listed in top 25 as cited by Science Direct. In spite of my heavy commitment to my basic research area of atomic and molecular spectroscopy and teaching activities, I managed to keep my research active to cover diversified fields by developing the laser applications in various engineering and scientific problems as per needs of the community at large and the Kingdom in particular and in synchroniuzation with the SNTP (Stratgic National Technology Plan) laid down by ministry of higher education and KACST.

I have published around 390 scientific papers in international refereed journals and conferences such as Applied Optics, J. Physics B, Optics Communications, Chemical Physics Letters, J. Molecular Spectroscopy, Applied Phys B, Spectroscopy Letters, Laser & Optics in Engineering, Nanotechnology, Applied Materials & Interfaces, Applied Surface Science, Science of Advanced Materials, J.Hazardous Materails, J. Nanoparticle Research, Talanta, Applied Catalysis B and A, J. Molecular Catalysis, Catalysis Communication and Conferences of high repute such as Conference on Lasers and Electro-optics (CLEO) and Quantum Electronics and Laser Science Conference, Colloquium Spectroscopicum Internationale, International Quantum Electronics Conference (IQEC) and other regional conferences. Three Patents on my latest inventions have been published by US patent office. My research work has been cited in various international journals and got over 2930 citations as per Google scholar..

I have interacted and shared my knowledge (through seminars) with the scientific community at KFUPM, other universities of the Kingdom and even at the international forums like International Center for Theoretical Physics (ICTP), Trieste Italy, European, American, Australian, Brazilian and Middle East Universities. I have floated many original and innovative ideas for different research projects, which have been tested experimentally and accepted for publications in journals. I have not only worked in my major field of Physics but also contributed reasonably well to interdisciplinary fields such as Nanotechnology, Material Science, Chemistry, Electrical & Mechanical Engineering and Environmental Science, Earth Science (Geology), Civil Engineering, Petrochemical & Refining and Petroleum Engineering. I have collaborated with scientists from these departments (e.g. Chemistry, Electrical, Mechanical, Earth Sciences, Civil, CRP and PE).

I have submitted many Research proposals and numerous technical discussion papers (ideas) to Saudi-Aramco, SABIC, Saudi Electric Company, BeeA'h, Bitumat, KACST, and to other local industries/organizations in the Kingdom. I have managed, co-coordinated and supervised and completed 13 research projects in the above mentioned areas of basic and applied nature funded internally and externally by clients. I have compiled many Scientific/ Technical reports regarding these projects.

I have participated in reviewing many research papers for various international journals like Applied Optics, Sensor and actuators, Laser and Optics in Engineering Optical and Quantum Electronics, Energy and Fuels, Talanta, Analytical Chemistry, J. Hazardous Materials, E.J. Physics, Applied Spectroscopy, Asian Journal of Spectroscopy etc and for KACST and KFUPM proposals.

I have been on different occasions external examiner for Master and Ph. D. students from King AbdulAziz University, Jeddah and Victoria University, Melbourne Australia, King Saud University Riyadh, National University of Science and Technology (NUST), Pakistan. I supervised Nine Ph.D students. I have been supervisor/co-supervisor for master and senior projects from physics department, mechanical engineering, electrical engineering and chemistry department. I have taught different physics courses as outlined in the CV. My professional and community services covers different activities like teaching, co-ordination and participation in many committees, organizing exhibition, short course and supervising senior projects.

Based on accomplishments in the research, teaching, marketing and other activities, my annual performance evaluation for the last 16 years have been rated as "OUTSTANDING" and I have been awarded Distinguished Professorship award from 2009/2010 which is only awarded to three professors in whole KFUPM. In addition, I have been awarded many national and international awards such as Al-Marai prize, Prince Mohammed Bin Fahd Best Team Award for Excellence in Research in 1995. the Distinguished (Best) Researcher award by KFUPM for the year 2005-2006 based on my research publications and research projects. I am also one of the recipient of the Best Research Paper award, instituted by the British Mechanical Engineers in 2007. Also awarded the Best Paper Award on "Detection of Ozone using Fourth Harmonic of Nd:YAG Laser at 1st International Conference & Exhibition on Laboratory Technology, Manama Bahrain (Oct 20-22, 2008). I was also awarded the best project award among many contenders for year 2008/2009 by KFUPM. Three of my patents on my latest inventions have been published by US patent office. Due to my research profiles, I have been selected as a member Editorial Boards of Eight Journals, AJSE, J. Sensors & Instrum, Int J. Spectroscopy, Int. J. Photoenergy, J. Eng, j. Env. & E. Sci, J. App. Sci, Eng & Tech, Pak. J. Anal. Chem. & Environ. Apart from these distinctions, I have collaborations (Research Projects & Thesis Co-Supervisions) with Chemists, Geologists Chemical Engineers, Mechanical Engineers, and Electrical, Civil and Petroleum Engineers and Material Scientists at KFUPM, and International Institution like Nanjing university China, MIT, USA, National University Singapore, KAUST, IST, and NUST Pakistan.

Laboratory Development Activities:

Worked on the development of the following laboratories :

- **Developed an Environmental Lab for monitoring of Atmospheric Pollution** and for trace gas analysis using **self-developed photoacoustic spectrometer** at Physics Department, KFUPM. The sensitivity achieved with this system is very high \sim pptV and this system has been tested for analysis of gases emitted from the automobile exhaust and also for detection of leaks. A project entitled "in situ detection of SF₆ leaks in power systems using laser" funded by SABIC UR grant was completed and also Saudi Electric Company and one Korean company specialized in Electrical Testing Equipment showed strong interest in the development of a mobile system for detection of leaks in switchgears high power electrical systems.
- **Laser Induced Breakdown Spectrometer (LIBS)** was developed at Physics Department, KFUPM and applied for detection of carcinogenic and poisonous contaminants in food and cosmetic products, oil slicks, paints, oil residue samples, oil slicks, iron slag, industrial waste, plastic waste, volcanic eruptions, old mines samples, drinking water, geological rocks and other solid samples. Completed many projects funded through the Deanship of University and KACST.
- **Development of a LIDAR** (light detection and ranging) system for remote monitoring of environment and for other applications in the field of Petroleum industry at Physics Department, KFUPM. A prototype system at Lab scale was built using second harmonic of Nd: YAG laser and a telescope having an eight-inch collecting mirror. The telescope has been replaced recently with commercial unit having 16 inch dia collecting mirror. The range resolved study of some pollutants i.e. SO₂, NO₂ has been studied in the

differential absorption mode in the laboratory environment. The system has been also tested for the analysis of clouds up to the range of 13 km. Two papers were published which got some international recognition in terms of science citations.

- A **Doppler LIDAR** was developed using ring dye laser and was applied for the remote monitoring of polluted liquid and gaseous discharges.
- **Synthesis of Nano Materials** using “Pulsed Laser Ablation Process” and chemical methods (sol-gel, precipitation etc) for various applications in the field of environment, water purification, fuel cells, sensors, petrochemicals and hydrogen production, carbon management by reduction of CO₂ into value added products like methanol, conversion of green house gases like methane into methanol, removal of heavy metals from water, disinfection of water.
- Synthesis of **Super Hydrophobic, Hydrophilic and Oleophobic surfaces** for oil water separation and self cleanings surfaces using Layer by Layer (LBL) coating, spin coating and cost effective pressurized spray coating techniques developed at KFUPM which is being highly utilized in a joint project with MIT on oil water separation..
- Developed facility for **Dye Sensitized and Perovskite Solar Cells (DSSC)** fabrication at KFUPM.
- Worked on the development of a setup for laser methane cracking using UV laser for Generation of Higher Hydrocarbons (gaseous phase) and Hydrogen under SABIC/URC project funding scheme.
- Worked on the development of a setup for Photocatalysis Conversion of Methane and CO₂ into methanol, production of hydrogen, wastewater treatment and disinfection of bacteria in water using solar and UV laser under SABIC/URC, NSTIP, KACST projects funding.
- Participated in ongoing project on development of a facility for “Regeneration of coated zeolite (catalyst) using a laser photolysis - glow discharge hybrid system” under SABIC /URC project funding scheme.
- Participated in the project for development of facility for non-destructive testing of materials using laser-generated ultrasound.
- Working on Development of New Tunable Laser Sources in the UV and visible region based on Stimulated Raman Scattering process for LIDAR System.
- Working and completed project on Laser Desulfurization of Crude Oil and proposal has been submitted to Saudi Aramco. A patent has been issued
- Completed a joint research five year approved internal project # 12043 on "Investigation of Laser Excited Alkaline Earth Metal Atoms".
- Working as principal investigator /task leader on various projects of applied nature in joint collaboration with academic departments and RI centers. Designed and developed various experiments to carry out the applied research projects. Most of the research work has been published in refereed journals, conference proceedings as well as in project reports.
- Completed many projects (long term and short term) of basic and applied nature funded externally and internally by KFUPM as listed in under project section.
- Was Invited to Deliver key note Speeches /talks/ Lectures on international and national forums as mentioned earlier under seminars etc.
- Have been advisor/ co-advisor / member for 9 Ph.D and 14 M.S. thesis students

- Supervised many senior, capstone and Co-op projects in collaboration with faculty members from other departments like EE, ME, Chem and parent department of Physics.

Training of Young Saudi faculty and collaboration with other Faculty members from Different Departments/Institutions

Following KFUPM faculty/staff members were initiated in Research (please see funded projects and Research Publications).

1.	Z.H. Yamani (Phys. Dept.)
2.	Z.Sedighi (UmmulQurah, Mekka)
3.	Nasir Aqeeli (ME Dept)
4.	H.Masoudi (EE Dept.)KFUPM
5.	Gareth H. McKinley, ME, Deptt, M.I. T., USA
6.	Abdulaziz Bagabas (KACST, Riyadh)
7.	Kripa K. Varanasi, ME, Deptt, M.I. T.,USA
8.	John Lienhard, ME, Deptt, M.I. T.,USA
9.	Gibum Kwon, ME, Deptt, M.I. T.,USA
10.	G. K. CHUAH, Chem. Deptt, NUS Singapore
11.	Y. Messedq, Phys.Deptt, Université Laval, Canada
12.	A.H. Bakary (KAAU, Jeddah)
13.	A.Arfaq (Chem. Dept.)
14.	S.M.Zubair (ME,Dept)
15.	G.Khattak (Phys. Dept)
16.	A. Mekki(Phys. Dept)
17.	Saleem Rao (Phys.Dept)
18.	Shanker (Phys.Dept)
19.	M. Al-Harti (Chem Eng. Dept)
20.	M.I. Ismail(KAAU, Jeddah)
21.	Josef Pola (Parague Check Republic)
22.	M.H.Shwehdi (EE, Dept and KFUPM)
23.	G. Mackenley (MIT)
24.	K.Varanasi (MIT)
25.	Z.Ahmed (Earth Science Dept.)
26.	N. Siddiqui (Chem. Dept.)
27.	M. A. Ali (CPR,RI)
28.	B. S.Yilbas (ME. Dept.)
29.	M.Arif (ME. Dept.)
30.	T.Hussain (Phys.Dept)
31.	M. N. Sayeed (Chem. Dept.)
32.	A. Hameed (Envirn. C.E. KAAU. Jeddah)
33.	M. Nasr (Phys.Dept, Riyad Medical College)
34.	K.Hayat (Chem. Dept.)
35.	K.Drmoosh (CENT).
36.	A. Al-Aswad (Phys.Dept) Saudi

Consultancy to National and International Scientific Institutes (visits)

- Center for Optics and Photonics (<http://www.cerpc.ca/en/team/>), Laval University, Quebec, Canada: contact and collaborator; Dr. Younes Messaddeq, Chaired Professor.
- Institute of Environmental Sciences and Engineering, National University of Sciences and Engineering (NUST, ranked at 350th in the world ranking), Rawalpindi, Pakistan for setting up laboratory for environmental monitoring using laser remote sensing technique, 2003 - 2008.
- Institute of Space Technology (IST) Islamabad, Pakistan for setting up Center of excellence in Advanced Materials (2013-till date)
- Invited as Visiting Professor, Physics Department, Free University Berlin, FR Germany to enhance the research in laser based pollution monitoring technique such as LIBS.(Summer, 2003) LIDAR.
- Invited as Visiting Professor, Institute of Physical Chemistry University of Heidelberg, FR Germany to enhance the research in laser based pollution monitoring technique such as Photoacoustic .(Summer, 1995)
- Consultancy to Physics Department, King AbdulAziz University, Jeddah for setting of Laser laboratory for pollution monitoring using Photoacoustic and LIBS technique and to establish research collaboration among KFUPM and KAAU. Visited many times to KAAU and also advised young Saudi faculty for master thesis. Dr A. Bakari and Dr. Reem specialist in laser spectroscopy from Physics department KAAU are the contact persons.
- Institute of Hydrochemistry Technical University Munich, Consultancy on applications of photoacoustic spectrometry for detection of water in oil for off shore drilling platforms, Contact Person: Dr. Dr. Christoph HAISCH and his group
- Physics Department, University of Qatar Consultancy on applications of laser induced breakdown spectroscopy for detection of trace metals and spectral analysis assignment. Contact Person: Dr. Mosa Al-Rabban.
- Physics Dept, King Saud University (KSU) for joint research work and help. Consultation for establishment of joint research program on LIBS. Contact Person: Dr. Saleh Al-Slaehi

Community Services and Committee work:

Year	Committee and its Role
1992	Member, Committee responsible for evaluation of servicing and maintenance of TEA CO ₂ laser system.
1993	Member, Committee responsible for reviewing internal reports and publications of Division-II, R.I.
1994	Member, Committee responsible for the study of laser applications in leak detection across pipelines. Member, Equipment Receiving Committee, R.I.
1995	Member, Committee appointed by H.E. the Rector, responsible for organizing a 10 days exhibition on lasers and their applications entitled "Lights on Light" at KFUPM.
1996	Member, committee responsible for technical co-operation and interface with industry.
1997	Member, committee responsible for technical co-operation and interface with industry. Member, Conference and publication committee by Vice Rector, Applied research.
1998	Member promotion committee Member, Annual award evaluation committee, Member, planning committee for next Five years research projects and marketing plan

	for Laser Research Section (LRS), Co-coordinator for monthly progress report of LRS
1999	Member committee for Short course on laser and their applications, Chairman - Equipment maintenance committee, Member -Planning committee for next two years research projects and marketing plan for LRS, Member, planning committee for next Five years research projects and marketing plan for Laser Research Section (LRS); Co-coordinator for monthly progress report of LRS
2002	Member Adhoc Committee for best researcher award for RI
2002-2003	Member Adhoc Committee for Team incentive award Co-coordinator for monthly progress report of LRS, Member Adhoc Committee for Team incentive award Co-coordinator for monthly progress report of LRS
2003-2004	Member Adhoc Committee for salary adjustment, grievances and campus housing for RI employees
2004-2005	Member Standing Committee for Research for Physics Department, Member Standing Committee Phys 102 for Physics Department
2005-2006	Member Standing Committee Phys 102 for Physics Department Member Standing Committee for Research for Physics Department, Chairman Standing Committee for Teaching for Physics Department Member Standing Committee for all experimental Labs for Physics Department
2006-2007	Member, University Research Advisory Committee to promote research at KFUPM under chairmanship of H.E. Rector., Member Standing Committee for industrial liaison for Physics Department Member Standing Committee for Teaching, Physics Department, Member Standing Committee for Research for Physics Department
2007-2008	Member, University Research Advisory Committee to promote research at KFUPM under chairmanship of H.E. Rector. Member Standing Committee for Teaching for Physics Department, Member Standing Committee for Research for Physics Department Member Standing Committee Phys 102 for Physics Department
2007-2009	Member Standing Committee to develop plan for Ph.D. program at Physics Department
2008-2009	Member Standing Committee Phys 102 for Physics Department Member Standing Committee for Research for Physics Department Member IMEG (Infrastructure and Major Equipment Grant) committee Member committee responsible for Distinguished Research Award
2009-2010	Member Standing Committee University Scientific Research Council, Member Adhoc Committee for formulation of Guidelines for best Thesis Award, Member Adhoc Committee for formulation of Guidelines for best Thesis Award, Chairman, faculty promotion Committee, Member Standing Committee Phys 102 for Physics Department
2010-2011	Chairman, faculty promotion Committee Member, faculty promotion Committee Member Standing Committee for Research and Industrial Liaison for Physics Department Physics 102 teaching committee

2011-2015	Member, faculty promotion Committee, Distinguished professorship committee, Member Standing Committee for Research and Industrial Liaison for Physics Department Member, faculty promotion Committee Physics 102 teaching committee
2013-2014	Chairman, Standing Committee for Research and Industrial Liaison for Physics Department Member Exam Committee Physics 101
2013-2015	Member University Scientific Research Council
2015-2016	Member Department Hiring Committee
2015-2018	Member University Scientific Council
2016-2017	Member Advisory Committee Chairman Physics
2011-till date	Member Editorial Boards of 7 Journals

Citations : Over 5300 as per Google Scholar Record, H-index 40