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Lecturer / Scientist – I (Faculty)
Department of Physics,
King Fahd University of Petroleum & Minerals
Dhahran – 31261, Saudi Arabia.

PERSONAL:

Date of Birth: 20 May 1967

Nationality: Indian.

Marital Status: Married (2 Children)

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Research Interest: Laser Molecular Spectroscopy,
Photo physics and Applications,
Nanomaterial Science,
Photo-catalysis
Environmental Applications,

EDUCATION:

MS

(Physics):

Specialized in Laser Molecular Spectroscopy, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, 1993.

Thesis: ${}^3A_2 - {}^1A_1$ Phosphorescence of Jet Cooled SO_2 using Pulsed Laser Excitation.

M. Sc

(Physics):

Specialized in Solid State, Madurai Kamaraj University, and Madurai, India 1989.

Thesis: Optical, Thermal Dielectric Investigation of $Na_2SiO_3 \cdot 7H_2O$.

B. Sc
(Physics): Madurai Kamaraj University, Madurai, India 1987.

PROFESSIONAL EXPERIENCE:

Jan. 2005 – Present: *Lecturer*, Physics Department, King Fahd University of Petroleum & Minerals.

Dec. 1998 – Dec.2005: *Scientist - I (Faculty grade)*, Laser Research Laboratory, Energy Research center King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia.

Dec. 1993 – Dec.1998: *Scientist – II*, Laser Research Laboratory, Energy Resources Division, Research Institute, King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia.

Jan. 1991 – Dec. 1993: *Research Assistant* (Along with the MS program) Department of Physics, King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia.

Oct. 1989 – Dec. 1990: *Instructor*, Friends Tuition and Computer Center. Nagercoil, Tamil Nadu, India.

AWARDS/ HONOUR:

- 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).
- National Oil Company (NOC), USA, Environmental Stewardship Award for the ARAMCO Project Laser –based Finger Printing of Crude Oils (2007).
- Member of the research team received "Prince Mohammed bin Fahd bin Abdulaziz Award for the excellence in research" (Saudi Arabia, 1995)

- Received "Chelliah Memorial Prize for outstanding student in Physics" (India, 1989).

RESEARCH INTEREST/ EXPERIENCE:

- Supersonic Jet Spectroscopy.
- Photo Acoustic Spectroscopy for environmental applications..
- Raman- Stimulated Raman Spectroscopy.
- Molecular Fluorescence Spectroscopy.
- Laser Induced Breakdown Spectroscopy (LIBS) for environmental applications.
- Laser Finger printing of Crude Oils.
- Photo Physics and Photo Catalytic Reactions of hydrocarbons.
- Optical Characterization of Thin Solid Films.
- Photocatalysis for environmental applications.

EXPERIENCE ON RESEARCH INSTRUMENTATION:

- Spectra Physics DCR -2A Pulsed Nd: YAG laser -(PDL) with WEX.
- Spectra Physics GCR -250 Pulsed Nd: YAG -. MOPO with FDO
- Quantel Pulsed Nd: YAG laser with $2\omega, 3\omega, 4\omega, 5\omega$ option.
- Coherent (INNOVO) Argon Ion Laser,
- TEA Pulsed high power CO₂ laser
- Coherent COMPRO Excimer laser
- KIMMONS He-Cd continuous wave laser
- Monochromators / Spectrographs / CCD and Gated ICCD camera.
- Spectrophotometers (Diffused Reflectance, Absorption, transmittance)
- Spectrofluorometers (Photluminescence, Synchronous fluorescence)
- Raman spectrometer,
- FTIR Spectrometer.
- EG & G Gated Boxcar Averager / Signal processor/ Phase lock loop system.
- Pulsed Supersonic Jet system / Time of Flight System.
- Photo Acoustic system.
- Ocean Optics LIBS 2000+ system.

TEACHING ACTIVITIES:

- PHYS 101 General Physics – I (Lab)
- PHYS 102 General Physics – II (Lab)
- PHYS 102 General Physics – II (Recitation)
- PHYS 011 Applied Physics
- PHYS 201 General Physics –III (Lab)
- PHYS 211 Optics (Lab)
- PHYS 212 Modern Physics (Lab)
- Training and Supporting the PHYS 503, Senior project, M. S and PhD students using the facility of Laser Labs for their thesis and projects.

FUNDED RESEARCH PROJECTS:

1. **Co- investigator**, (KACST- TIC for CCS) # CCS -16 Development Of Efficient Photochemical Process For Conversion Of CO₂ Into Useful Hydrocarbons With Self Synthesized Porous And Non Porous Nanocatalysts (1 January 2015 - 30 April 2017).
2. **Co-investigator**, (KFUPM –DSR –Book writing), Novel Bismuth Oxyhalide Based Materials and their Application (1 May 2015-1 November 2016)
3. **Co- investigator** (KFUPM – MIT Joint project) # **MIT13103 & MIT 13104** Remediation of Water Produced in Resource Extraction (January 2012-May 2017).
4. **Co-investigator**, (KFUPM –) RG 1405-1 & RG1405-2,Pulsed Laser Deposited Bismuth Telluride Thin Films, a Study for thermoelectric Applications (1 March 2015- 1 September 2017).
5. **Co- investigator KFUPM Internal project # Rg1311-1 & Rg1311-2**, Synthesis of Nanoalloys and Nanocomposites using Pulsed Laser Ablation in Liquids (January 2013-Jan 2016).
6. **Co- investigator KFUPM Internal project # Rg1221-1 & Rg1221-2** Effects of Pulsed Nd:YAG Laser fluence on the Structural properties and Valence States of Transition Metal Ions in Phosphate Glasses (1 Sep2012-1 Sep 2014)
7. **Co- Investigator, KFUPM 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)

8. **Co- investigator (KFUPM – MIT Joint project) # MIT 11109 & MIT 11110** Remediation of Water Produced in Resource Extraction (January 2012-Jan 2015).
9. **Co-Investigator , KFUPM 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)
10. **Co- investigator, KFUPM Internal project # Rg1011-1 & Rg1011-2,** Photo-catalytic conversion of carbon dioxide into methanol using nanocatalysts (Oct 2010- March 2013)
11. **Co- investigator, KFUPM Internal project # IN100032** Oxygen vacancies effects on the properties of ZnO-TM.
12. **Co- 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).
13. **Co- investigator, KACST # 28-40** Disinfection of Contaminated Water by Laser Induced Photo-catalysis Process using Semiconductor Catalysts. (Jan 2009-Jan2011).
14. **Co- investigator, KFUPM 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).
15. **Co-Investigator, KFUPM internal project # In-080401** Development of LIBS spectrometer for various applications (2008-2011).
16. **Co-Investigator ARAMCO Project in** Determination of DRA Polymer in Petroleum Fuel Saudi May 2006-April 2007
17. **Co-Investigator ARAMCO Project in** Laser -based Finger Printing of Crude Oils- Funded by Saudi ARAMCO, Dhahran Saudi Arabia. September 2004- June 2006
18. **Co- investigator, KFUPM Internal project** Development of laser based remote sensors for environmental studies. Funded by KFUPM Research Grants - October 2003- February2005

19. **Co-Investigator Saudi Arabian Basic Industrial Corporation (SABIC)** In situ Detection of SF₆ leaks in Power System. (Oct. 2000 – September 2002).. Completed in September 2003
20. **Co-Investigator Saudi Arabian Basic Industrial Corporation (SABIC)** Methane cracking for the Production of Higher Hydrocarbons and Hydrogen using Selective Laser Excitation Process. Funded by Saudi Arabian Basic Industrial Corporation (SABIC). Completed in September 2003.

COMMITTEE WORKS (KFUPM):

- Member, Safety committee, Department of Physic, KFUPM.
- Member Physics Demo committee, Department of Physic, KFUPM.
- Member of a professional team working towards the establishments of a Science and Technology Park in the Eastern Province of Saudi Arabia (A Special Assignment from H. E. The Rector of KFUPM).
- Member, Organizing Committee, Workshop on The Role of Science & Technology Parks & Incubators as Home for Entrepreneurs from University and Industry (2001).
- Member, Scientific Committee, Saudi-French Workshop on Recent Developments in Material Processing and Modeling held in KFUPM.
- Member Organizing Committee of Saudi-French Laser Exhibition "Lights on Light" held in KFUPM. (1994)
- Member of the professional team for the establishment of Time of Flight Spectroscopy Laboratory at the Research Institute of KFUPM (A special Assignment from the Director of Research Institute, KFUPM) (1994).

PATENTS:

1. M.A. Gondal, **M.A. Dastageer**, A.B. Khalil, S.G. Rashid, Umair Baig, Advance Strategy for Sterilization of Sulfate Reducing Bacteria from Produced Water (Patent applied)

2. 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 Pub. Date 3 March 2005.**
3. M. A. Gondal, X. Chang, M.A Ali , **M. A. Dastageer**, S. M. Zubair, J. H. Lienhard V, Method for the Utilization Of Ruba Al-Khali Saudi Sand for the Removal of Rhodamine B From Industrial Waste Water Streams **US Pat # 61/918837**
4. 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 **US Pat # 61/918863**

PUBLICATIONS:

Book Chapter

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.

Publications in International (ISI Listed) Journals

1. 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 (JOLT –D submitted)
2. Mohammed A. Gondal, Mohamed A. Dastageer, Amjad B. Khalil, Siddiqu G. Rashid, Umair Baig Photo-catalytic Deactivation of Sulfate Reducing Bacteria – A comparative study with different catalysts and the preeminence of Pd-loaded WO₃ Nanoparticles RSC Advances (accepted)
3. Xiaofeng Chang, Shuangbao Wang, Qi Qi, M.A. Gondal, S.G. Rashid, Deyuan Yang, **M.A. Dastageer**, Kai Shen, Qingyu Xu, Peng Wang , Constrained Growth of Ultrasmall BiOCl Nanodiscs and Their Enhanced Photoreactivity Under Visible Light *Applied Catalysis B Environmental* 176-177, (2015) 201-211.
4. S.G. Rashid , M.A. Gondal , A. Hameed, M. Aslam , **M. A. Dastageer**, Z. H. Yamani , and D. H. Anjum (2015), Synthesis of Visible Light Driven

Cr/Ce/TiON Multi Component Nanophotocatalyst and its applications in degradation of Humic Acid *RSC Advances*. 5(41), (2015) 32323-32332.

5. Talal F. Qahtan, M.A. Gondal, **M. A. Dastageer**, Z. H. Yamani and D. H. Anjum (2015) A Rapid and Cost-Effective Laser based Synthesis of High Purity CdSe Quantum Dots for Solar Energy Harvesting *Journal of Nanoscience and Nanotechnology* 15, (2015), 1-6.
6. Yousong Liu, Guangbin Ji, **Mohammed Abdulkader Dastageer**, Lei Zhu, Junyi Wang, Bin Zhang, Xiaofeng Chang and Mohammed Ashraf Gondal, High-Active Direct Z-scheme Si/TiO₂ Photocatalyst for Boosted CO₂ Reduction into Value-added Methanol *RSC Advances* Volume 4, Issue 100, (2014) 56961-56969.
7. Gondal, M. A.; Sadullah, **Muhammad; Dastageer**, M.; McKinley, Gareth; Panchanathan, Kripa K. Varanasi, Study of factors governing oil water separation process using superhydrophilic surfaces prepared by spray deposition of nanoparticle dispersions" *ACS Appl. Mater. Interfaces*, 6 (16), (2014), 13422–13429.
8. A. O. Mehder, M. A. Gondal, **M. A. Dastageer**, M. A. Iqbal, L. E. Oloore, Y. B. Habibullah (2015) Detection of Carcinogenic Bromine in the White Loaf Bread using Laser Induced Breakdown Spectroscopy (submitted)
9. M. A. Gondal, Y. W. Maganda, **M.A. Dastageer**, F. F. Al Adel, A. A. Naqvi, T. F. Detection of Carcinogenic Chromium in Synthetic Hair Dyes using Laser Induced Breakdown Spectroscopy, *Applied Optics* 53 (8), 1636-1643.
10. A. Al. 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* 53 (8), 1709-1717.
11. 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.
12. M.A. Gondal, Talal F. Qahtan, **M. A. Dastageer**, Tawfik A. Saleh, Yasin. W. Maganda and D. H. Anjum (2013) Effects of Oxidizing Medium on the Composition, Morphology and Optical Properties of Copper Oxide Nanoparticles produced by Pulsed Laser Ablation *J. Appl. Surface Science*, 286 (2013) 149– 155.
13. 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, 2201908 (2013).

14. A. Naqvi, Faris A. Al-Matouq, Fateh Z. Khiari, Mohammed A. Gondal, Anvarhusein A. Isab, Khateeb ur-Rehman, Mohammad Raashid and **Mohamed Dastageer**, (2013) 350 keV Accelerator based PGNA Setup to Detect Nitrogen in Bulk Samples Nuclear Inst. and Methods in Physics Research, A 729, 8-13
15. M. A. Gondal, **M.A. Dastageer**, S.G.Rashid, S. M.Zubair, M. A. Ali, D. H. Anjum J.H. Lienhard, G.H. McKinley (2013) Plasmonic Resonance Enhanced Photo-catalysis in the Visible Region with Au/Cu-TiO₂ nanoparticles - Case study for the Removal Cr (VI) from Water, Science of Advanced Materials 5 (12), 2007-2014.
16. M. A. Gondal, Talal F. Qahtan, **M. A. Dastageer**, Yasin. W. Maganda, and D. H. Anjum (2013) Synthesis of Cu/Cu₂O Nanoparticles by Laser Ablation in Deionized Water and Their Annealing Transformation Into CuO Nanoparticles J. Nanoscience and Technology 13 (8), 5759-5766
17. F. F. Adel, **M. A. Dastageer**, K Gasmi, M. A. Gondal (2013), Development and Optimization of a Laser Induced Breakdown Spectroscopy Method for the Analysis of Liquid Samples J. Appl. Spectroscopy Vol. 80, 777-780
18. M.A. Gondal, M.A. Ali, **M.A.Dastageer**, X.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, Catalysis Letters 143 (1), 108-117.
19. A. Naqvi, Faris A. Al-Matouq, Fateh Z. Khiari, Mohammed A. Gondal, Anvarhusein A. Isab, Khateeb ur-Rehman, Mohammad Raashid and **Mohamed Dastageer**, (2013) Nitrogen Detection in Bulk Samples using a D-D Reaction Based Portable Neutron Generator," J. Spectroscopy **2013** Article ID 486192, 7 pages.
20. M. A. Gondal, **M. A. Dastageer** (2012) Spectral red shift in the Ag²⁺ doped CdS quantum dots *Appl Phys B* (2012) 106:419–424.
21. 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.
22. 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) .

23. 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).
24. 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. A. 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 , 882-87.
25. M.F. Al-Kuhaili, S.M.A. Durrani, I.A. Bakhtiari, **M.A. Dastageer**, M.B. Mekki, (2011) influence of Hydrogen Annealing on the properties of Hafnium Oxide Thin Films, *Materials Chemistry and Physics* 126 , 515-523.
26. 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*, 50, 3488-3496.
27. Amir Abdalla, Nouar Tabet, **Mohamed Dastageer** and Syed Said (2011) Growth of zinc oxide nanostructures via thermal oxidation of DC-sputtered zinc films *Physica Status Solidi-C* 8, No. 4, 1097–1104 .
28. 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.
29. 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.
30. M. A. Gondal, A. Khalil, **M. A. Dastageer**, K. Hayat 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* Volume 13, Number 8, 3423-3430
31. **M. A. Dastageer**, Fida. F. AL-ADEL, , Khalid Gasmi and I. A. Bakhtiari (2010) An Unambiguous Determination of Specific Spectroscopic Signatures of Different Crude Oils, *Asian Journal of Spectroscopy* Vol. 14, pages 23-30.
32. M.A. Gondal, **M. A. Dastageer**, M. Maslehuddin, A.J. Alnehmi, O. S. B. AL-Amoudi (2011), 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* 46, 198-203(6).

33. Bagabas, A., Gondal, M., Khalil, **M. 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 .
34. A. Fazal, S. Al-Fayez, L.H. Abdel-Rahman, Z. S. Seddigi, A. R. Al-Arfaj, B. El Ali, Mohammad **M. 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.
35. M. A. Gondal, A. A. Bagabas, **M. A. Dastageer**, A. Khalil (2010) Synthesis, Characterization, and Antimicrobial Application of Nano-Palladium doped Nano-WO₃ *J. Molecular Catalysis A* ,323, 78-83 (2010).
36. M.A. Gondal and **M. A. Dastageer** (2010) Design, Fabrication, and Optimization of Photo Acoustic Gas Sensor for the Trace Level Detection of NO₂ in the Atmosphere *J. Env. Science and Health Part A Vol 45*, (2010). 1406-1412
37. 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.
38. Gondal, M. A, **M. 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).
39. Fida. F. Al- Adel, **Mohamed A. Dastageer**, Imran A. Baktiari (2009) Enhancement of Detectability Limits of NO₃ in Deionized Water by Laser Raman Spectroscopy, *Asian Journal of Spectroscopy*, 13, 101.
40. Gondal, M. A, **M. 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.
41. Gondal, M. A , **M. 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.

42. Gondal, M. A, **M. 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.
43. Fida F. Al-Adel, **M. A. Dastageer**, I. A. Bakhtiari and R. Al-Gaashani, (2008), Application of a new method for Evaluating the Temperature Reduction Associated with Infrared Reduction by Films, *Asian Journal of Spectroscopy*, 12, 69.
44. Gondal, M. A, **M. 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).
45. Gondal, M. A, **M. 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).
46. Al-Adel and **M. A. Dastageer**, (2007) "Investigations of the process of Selective Molecular Photonic replication in Coumarin 500 and its relation to Other emission Processes", *Intl. Rev. of Physics. 1*, 89
47. Gondal, M. A, **M. 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).
48. Al-Adel and **M. A. Dastageer**, "Spectrophotometric investigation of ultraviolet radiation and heat controlling commercial filters", *Asian Journal of Spectroscopy 10(Dec. 2006) 129*:
49. Gondal, M. A, M. H. Shwehdi and **M. A. Dastageer** (2004), Photoacoustic Spectrometry For Trace Gas Analysis and Leak Detection Using Different Cell Geometries, *TALANTA Vol 62*, 131.
50. Gondal, M. A., **M. A. Dastageer**, 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.
51. Gondal, M. A., Zain. H. Yamani, **M. A. Dastageer**, M. A. Ali and A. Arfaj (2003), Photo-conversion of methane into higher hydrocarbons using 355 nm laser radiation, *Spectroscopy Letters*, Vol 36, 313.
52. Gondal, M. A, **M. A. Dastageer**, 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.

53. Gondal, M. A., **M. A. Dastageer**, 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.
54. **Dastageer**, Yamani, Al-Adel (2001) Collisional Cooling Effect of a Selected Hot Bands of Sulphur Dioxide, *Asian Journal of Spectroscopy*. April 2001.
55. **Dastageer, A.**, E. Hegazi, A. Hamdan, and F. Al-Adel (1999). Relative Mixing Coefficients of Zero-Order ¹B₁ (n, 0, 0) Levels in the ¹B₁ – ¹A₂ Hybrid wave functions of the Vibronic Bands of SO₂ in the 32184-34040 cm⁻¹ Region. *J. Chem. Phys* v. 111 pp1784,
56. E. Hegazi, a .Al-Adel, **A. Dastageer**, and A .Hamdan, (1998). The Zero order ¹B₁(n,0,0) Vibrational levels of Sulphur dioxide *J.of Chem. Phys* v. 109, pp 3928- 3933
57. **Dastageer, A.**, E. Hegazi, A. Hamdan, and F. Al-Adel (1997). Spectroscopic investigation of the G band of SO₂. *Chem. Phys. Lett.*, v.275, pp 283-290
58. **Dastageer, A.**, E. Hegazi, A. Hamdan, and F. Al-Adel (1997). An extension of the cold SO₂ excitation spectrum up to 34230 cm⁻¹. *Asian J. of Spectroscopy*, v. pp 210-214.
59. Al-Adel, F., E. Hegazi, A. Hamdan, and **A. Dastageer** (1997). Identification of the ³⁴S¹⁶O₂ Vibronic Bands in the 31120-32160 cm⁻¹ Region. *Mol. Phys.*, v. 90, pp 225-234
60. Al-Adel, F., E. Hegazi, A. Hamdan, and **A. Dastageer** (1997) Dispersed Fluorescence Spectra of Weak Vibronic Bands between 32900 and 33400 cm⁻¹ of SO₂, *Asian J. of Spectroscopy*, v.1 pp 57-63.
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