C.**V**.

Dr. BASSAM S. TAWABINI

CURRENT ADDRESS

King Fahd University of Petroleum & Minerals (KFUPM) P.O. Box # 189, Dhahran 31261, KSA Tel.: +966-3-860-7643 Fax: +966-3-860-2595 Mobile: +966-5-214-5429 E-Mail: bassamst@kfupm.edu.sa bassamst@gmail.com



EDUCATION

- **2002** <u>Ph.D.</u> Civil Engineering (*Environmental Engineering*), KFUPM, Dhahran, Saudi Arabia. PhD Thesis Title "Treatment of Water Contaminated with DMP by Fenton, Photo-Fenton and UV/H₂O₂ Process".
- **2001 High Diploma** (*Sustainable Development*) **.** Middle East University. Boston

College, USA.

1987 <u>M.Sc.</u> Civil Engineering (*Water Resources & Environmental Engineering*). KFUPM, Dhahran, Saudi Arabia. MSc Thesis Title" Trihalomethanes Formation in A Distillation Process".

1984 <u>**B.Sc.</u> Civil Engineering.** King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. Graduated with honor.</u>

EMPLOYMENT HISTORY

2007 - Present Assistant Professor: Environmental Science & Engineerig

Faculty in the Master Program in Environmental Science Earth Sciences Department, KFUPM, Dhahran, Saudi Arabia.

1987 - 2007 Senior Environmental Research Engineer

Center for Environment and Water (CEW) Research Institute, KFUPM, Dhahran, Saudi Arabia.

1984 - 1987Research Assistant (Lecturer)

Water Resources and Environmental Engineering Division Civil Engineering Department, KFUPM

I. ACADEMIC ACHIEVEMENTS

Courses Taught

- Advanced Environmental Chemistry.
- Advanced Environmental Pollution
- Environmental Analysis
- Environmental Chemistry
- Advanced Environmental Chemistry
- Environmental Engineering Fundamentals.
- Environmental Impact Assessment (EIA)

Partial Teaching

- Environmental Analytical Chemistry
- Environmental Geology

Research Interest

- Investigation the fate of pollutants in the water, air and soil environments.
- Assessment, monitoring and remediation of water, groundwater and soils contaminated with hazardous pollutants.
- Management of industrial wastes.
- Assessing the Disinfection By-products (DBPs) formed when disinfecting blended drinking water using chlorine, ozone and chlorine dioxide.
- Treatment of groundwater contaminated with VOCs using advanced technologies.
- Treatment of contaminate water with nanotechnology.

Current Research Projects

- 1. Treatment of water contaminated with MTBE by Photo-TiO₂ System and Carbon Nanotubes (CNTs).
- 2. Microbial Dynamics in oil Field Systems.
- 3. Production of Carbon Nanotubes by using a Vertical Orifice Chemical Vapor Deposition (VO-CVD) for Water Purifications and Polymerization of Polystyrene Nanocomposite.
- 4. Assessing the Fate of Inorganic and Organic Disinfection By-Products in Saudi Arabian Drinking Water.
- 5. Determination and Assessment of Organotin Compounds in the Saudi Marine Environment.
- 6. Photooxidation of MTBE in the Presence of Hydrogen Peroxide.
- 7. Developing an Innovative Advanced Oxidation Technology for the Removal of Trace Organics and Bacteria in Water
- 8. A pilot study on the removal of MTBE from contaminated groundwater by advanced oxidation processes Phase II.
- 9. A Pilot Project to Evaluate and Develop a Groundwater Remediation Technology.
- 10. Monitoring and Assessment of Water Quality of Al-Asfar Lake in Al-Hasa Region, Saudi Arabia.

Supervision of MSc. Thesis

- 1. Chairman, MSc. Thesis titled: <u>Environmental Pollution at Dammam Gas Stations</u>. By Ali Al-Qahtani at Naif Arab University for Security Sciences". Riyadh, Saudi Arabia.
- Member, MSc. Thesis titled: <u>Inductively Coupled Plasma Atomic Emission Spectroscopy</u> <u>Technique for the Determination of Nitrogen and Total Organic Carbon</u> ". By Nemr Mehanna at Chemistry Department, <u>KFUPM</u>. Dhahran, Saudi Arabia.
- Member, MSc. Thesis titled: <u>Optimization of photochemical oxidation processes for</u> <u>MTBE Degradation using ESR spectroscopy</u>". By Qasem Al-Sherari, ENVS Program, Earth Sciences Department, <u>KFUPM</u>. Dhahran, Saudi Arabia.
- Member, MSc. Thesis titled" <u>Environmental Impact Assessment (EIA) Of Natural Gas and Crude Oil Fuel At Qurayyah Power Plant</u>". By Adel Al-Khalifah, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.
- 5. Member, MSc. Thesis titled" <u>Evaluation of Tropospheric Ozone Concentrations in the</u> <u>Eastern Province of Saudi Arabia</u>." By Mathker Otaibi, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.
- Chairman, MSc. Thesis Titled" <u>Removal of arsenic and mercury from water by</u> <u>multiwalled carbon nanotubes</u>" By Salman Al-Khaldi, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, KSA
- Chairman, MSc. Thesis Titled" <u>The Fate of Bromate Formation in Water Treated by</u> <u>Ozone-Based Advanced Oxidation Processes</u> ". By Abdulrazaq Zubair, ENVS Program, Earth Science Department, KFUPM. Dhahran, Saudi Arabia.

- Member, MSc. Thesis Titled" <u>Lead and Chromium Removal From Polluted Water Using</u> <u>Carbon Nanotubes</u>". By Omer Bakatheer, ENVS Program, Earth Science Department, KFUPM. Dhahran, KSA
- Chairman, MSc. Thesis titled" <u>Environmental Assessment of Groundwater Quality in</u> <u>Tarout Island, Eastern Saudi Arabia</u>". By Raeid Sadiq, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.
- Member, MSc. Thesis Titled" <u>Bioremediation of petroleum contaminated sites by</u> <u>indigeneous bacteria</u>". By Feras Salamah, ENVS Program, Earth Science Department, KFUPM. Dhahran, Saudi Arabia.
- 11. Chairman, MSc. Thesis titled" <u>Quantitative Assessment of Disinfection By-Products</u> Formed by Chlorine, Chlorine Dioxide and Ozone in Saudi Arabian Drinking Water. By Mohammed Al-Mutair. Earth Sciences Department, KFUPM, Dhahran, Saudi Arabia.
- Chairman, MSc. Thesis titled" <u>Assessment of Industrial Waste Management in Jubail</u> <u>Industrial City.</u> By Mamdouh Al-Amri, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.
- Chairman, MSc. Thesis titled" <u>Management of the Drilling Waste in Eastern Province of</u> <u>Saudi Arabia</u>. By Ali Al-Zahrani, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.
- Chairman, MSc. Thesis titled" <u>Degradation of MTBE using photo-TiO2 and CNTs</u>", By Musah Muhyeddin, ENVS Program, Earth Sciences Department, KFUPM. Dhahran, Saudi Arabia.

Workshops, Seminars and Conferences

- <u>Capacity Building for Carbon Dioxide (CO₂)</u>: Carbon Sequestration Leadership Forum (CSLF), Observer, Saudi Arabian Delegate, Al-Khobar, Saudi Arabia
- Joint KFUPM-EAGE: <u>Geological History of CO₂: Atmospheric Change and Natural</u> <u>Sequestration</u>" by Alain-Yves Huc Institut Français du Pétrole. KFUPM, Dhahran, KSA.
- Workshop on the <u>Future of Clean Energy in the Kingdom of Saudi Arabia</u>. KFUPM. Dhahran, KSA.
- SAWEA Workshop on <u>The Design of Water & Wastewater Pumping Stations</u>. Al-Khobar, KSA.
- Workshop on <u>Biotechnology for the 21st Century: New Horizons</u>. KFUPM. Dhahran, KSA.
- Environmental Impacts of Drilling Wastes Disposal in Sabkha Areas. Waste Management Middle East Forum. Organized by Fleming Gulf Conferences. Abu Dhabi, UAE. 5-6th December 2010.
- Joint KFUPM-JCCP Environmental Symposium" <u>GCC Environment and Sustainable</u> <u>Development</u>". Jan. 28-30, 2008. KFUPM. Dhahran, KSA.
- Saudi Aramco's First Drilling Symposium. Dec. 1-2. 2007. Khobar, KSA.
- <u>Research Team Leadership</u>. By The UK Leadreship Foundation for Higher Education.
- <u>E-learning</u>: Teaching and Learning skills for Online Education.
- <u>Strategies For Success in Grant Proposal Writing</u>. Organized by Deanship Scientific Research, KFUPM.
- <u>Measuring Research Performance</u>. Organized by Deanship Scientific Research, KFUPM.

Public Seminars

• Application of Nanotechnology for the treatment of water. Environment Day Meeting. Dammam, KSA. June 2009.

- Human Impacts on the Environment: General Overview and Assessment. Organized by Dhahran Geosciences Society (DGS). Dammam, Saudi Arabia. Nov. 2008.
- Phthalates Removal by UV/Oxidation Technique, Boston College. Boston, USA.
- Chromatographic Analysis of the Environment, CE Department, KFUPM, KSA.
- Applications of advanced Oxidation Technologies: Present and Future. Wastewater Treatment Technical Exchange Meeting, Saudi Aramco, Dammam, KSA.
- Forecasting Water Demand in the City of Al-Khobar Using Time Series Modeling. 1st Workshop on Water Resources Development and Water Conservation, Organized by the Saudi Ministry of Water and Agriculture, Riyadh.
- Remediation of groundwater contaminated with MTBE using AOPs. Saudi Aramco. Saudi Arabia.
- Advanced Oxidation Technology: An Emerging technology for the Treatment of Contaminated Waters". The Environment Day 2007. The Royal Commission of Jubail, June 5th – 6th, 2007.
- Ozonation of Highly Bromide Water: The Bromate Issue. Earth Sciences Department, January 2008.
- Water Disinfection by Ozonation and the Bromate Issue. Organized by American Chemical Society (ACS) Saudi Arabian Chapter . Jan. 19th 2010, Al-Khobar, KSA.
- Management of Drilling Waste: An Overview. International Association of Drilling Contractors (IADC). Al-Khobar, KSA 15 Feb. 2012.

Technical Training & Short Courses

- Ground Water Contamination. KFUPM, Dhahran, KSA
- Applications of GC & HPLC. KFUPM, Dhahran, KSA
- Trace Analysis. KFUPM, Dhahran, KSA
- Pollution Control in Chemical Industries (air, water & soil). KFUPM, Dhahran, KSA
- Civil Engineering and the Environment. KFUPM, Dhahran, KSA
- Saudi Aramco Course: Utilities: Steam Turbines . Saudi Aramco, Dhahran, KSA
- Hazardous Waste Management. KFUPM, Dhahran, KSA
- Applications of GC and GC/MS. KFUPM, Dhahran, KSA
- Safety, Health and Environment (SHE) Management. SABIC, United Co., Jubail, KSA
- Air Dispersion Modeling. Trinity Consultants, USA. March 2009.
- Principles of Environmental Risk Assessmet, Al-Khobar. 8-10 Jan. 2011, Organized by ETMA.
- Workshop on "Environmenta and Petrochemical Industries". Organized by KFUP-ETMA during Petrochem Arabia 2011.

II. <u>PROFESSIONAL EXPERIENCE</u>

A. Projects Executed In Water Resources & Environmental Engineering

Extensive experience in the area of environmental science and engineering including: water, soil, and air pollution assessment and control; water and wastewater treatment; and management of industrial and hazardous waste. Responsibilities include: proposal writing, project planning and management, information acquisition, filed study and report writing. Selected projects include:

Water & Wastewater Treatment Projects

- The potential for water saving in the K.S.A. using hydrobond polymers.
- Determining the levels of chlorination by-products (THMs and other organic pollutants) in Saudi Arabian drinking waters.
- o Remediation of Contaminated Groundwater Using Advanced Oxidation Technology.
- Assessing and Evaluation of the wastewater treatment facilities at the Arabian Oil Co. (AOC) in Al-Khafji City, Saudi Arabia.

- Evaluating a dissolved Air flotation (DAF) system for the treatment of an API oily wastewater effluent.
- Application of Photo-Oxidation Process of the Removal of MTBE in the Presence of H₂O₂.

Waste Management Projects

- o Management of Solid Wastes in Tri-cities of Dammam, Al-Khobar and Dhahran.
- o Nitrogen Removal in Compartmentalized Activated Sludge System
- o Nation-Wide Solid Waste Management initiative. Naqaa Al-Tabee'ah Co.
- o Establishment of an Integrated Hazardous Waste Management Facility in Yanbu industrial city.

Assessment of Contaminated Site

- o Assessment of the soil and groundwater contamination by MTBE in industrial facilities.
- o Remediation of Contaminated Groundwater Using Advanced Oxidation Technology.
- o Determination and Assessment of Organotin Compounds in the Saudi Marine Environment.
- Evaluating the extent of contamination of a shredder waste dumping area by the Toxicity Characteristics Leachate Procedure (TCLP).
- o Assessment of the environmental damages incurred by the Kingdom due to the Second Gulf War.
- Assessment of the Oil-Contaminated Sites in Kuwait. Rezayat Co. 2004.
- Monitoring the levels of Arsenic in Fish from the Arabian Gulf.
- Environmental protection studies "Corrosion Research Contract: Attack of Structural Foundations by Seawater Intrusion.
- Soil bioremediation treatability study using the novel biotreatment (MED) technology.
- o Environmental Site Assessment for Ras Tanura Integrated Projects. Saudi Aramco.
- o Phase I: Environmental Site Assessment for Prince Mohammed Resort. Arensco, KSA
- o Environmental Auditing Services for Amiantit Fiberglass Industries Ltd. Saudi Arabia.
- Conduct an Updated baseline environmental assessment specification for Rabigh Development Project. Rabigh, Saudi Arabia

Air Pollution Projects

- Studying the impact of the in-house respirable and non-respirable dust particles in Hadeed Co. working and storage area.
- Air Dispersion Modeling (BREEZE-AIRMOD). By Trinity Consultants, USA.

B. Environmental Analysis (laboratory) Experience

Coordinator - Water Quality and Environmental Testing Laboratory

1987-2007, Research Institute, KFUPM

Chemical Analysis

- Extensive hands-on experience on environmental and chemical analytical services. Conducted analytical work using state-of-the-art instruments including: *GC*, *GC/MS*, *HPLC*, *FTIR*, *IC*, *ICP*, *UV/VIS* ...etc.
- Characterize water, sediments, wastewater, sludge, solid and hazardous wastes as well as air samples for their organic and inorganic constituents such as *VOCs; SVOCs; PAHs; PCBs; BTEX; TOC; Oil &Grease; Phenols; TPH; Pesticide, heavy metals...etc,* based on USEPA, SW-846, SMEWW, OSHA, NIOSH and ASTM standard methods.
- Familiar with quality assurance/quality (QA/QC) control procedures and guidelines. Prepare quality assurance manuals (QAM) and standard operating procedures (SOPs).
- Familiar with the local and international environment regulations and standards.

III. <u>CONSULTANCY WORK</u>

1- Consultancy: Environmental Impact Assessment (EIA) Projects

- Shaybah 250 MBCD AXL Crude Expansion.
- Environmental Baseline Survey Rabigh Development Project.
- Saffania Plant Expansion.
- Upgrade Drinking Water Production Facilities in Dhahran & Dammam.
- Yanbu Gas Plant Expansion.
- Environmental Baseline Study for Manifa Crude Oil Program
- Jabal Sayid Mining Project. Environmental Baseline Study.
- Wafra Central Gas Utilization Joint Operations (JO) Exploratory Well.
- Updated baseline environmental assessment specification for Rabigh Development
- Environmental Site Assessment for Prince Mohammed Resort. Khobar, Saudi Arabia.
- Environmental Auditing Services. Amiantit Fiberglass Industries Ltd. Saudi Arabia.
- Environmental Site Assessment Works for Ras Tanura Integrated Project. Saudi Arabia
- Environmental Site Assessment for Ras Tanura Integrated Projects. Saudi Aramco.
- Phase I: Environmental Site Assessment for Prince Mohammed Resort. Arensco, KSA
- Environmental Auditing Services for Amiantit Fiberglass Industries Ltd. Saudi Arabia.
- KAUST Research Park Utilities. Red Sea Coast, Saudi Arabia 2010.
- Feed for Kuwait Gulf Oil Company (KGOC) GAS and NGL Export System.
- Red Sea Drilling Operations. Saudi Aramco.

2- Upgrade of Analytical Laboratories

- Upgrade of ISS Environmental Analytical Laboratory, Dammam, Saudi Arabia.
- Assessment of the Al-Murjan Environmental Laboratory (MEAL), Yanbu, Saudi Arabia.

3- Market Research Studies

- Establishment of an Advanced Environmental Lab in Saudi Arabia. Khaled Al-Turki Group.
- Environmental Business in Saudi Arabian Market: Opportunities and Challenges. Al Othman group, Dammam, Saudi Arabia.

IV. <u>PROFESSIONAL DEVELOPMENT</u>

Participated in Intensive Courses in USA including:

- The Economic System and the Environment. By Prof. J. Harris, Tufts University, USA.
- Cleaner Production and Pollution Prevention. By Prof. Don Huisingh, University of Tennesse, USA.
- Ecosystem Management. Watson Institute for International Studies. Dr. Richard Wetzler, Brown Univ.
- Sustainability, Trade, and Environment. Technology and Policy. Prof. Nicholas Ashford, Massachusetts Institute of Technology (MIT). USA.

Familiar with Scientific Computer and Software Packages

- Microsoft word, excel , power point, access....etc
- Air Dispersion Modeling (AERMOD).

- Rainfall/Runoff Models: ILLUDAS, STORM, MODFLOW, SWMM,
- Water Resources Planning Models: TORA, SIMPLEX, LINDO
- Design Software : AUTOCAD, SURFER,...etc
- Water Treatment Design Packages: ROSA and CSM 2000 (RO Simulation Models).

Conference Organization and Scientific Committees:

- **Co-Chair**: First International Conference on Environmental Management and Technology. Amman, Jordan, 1-3 Nov. 2010.
- Scientific Committee Member for the following Conferences:
 - o 2nd Intl Conference on Environmental Engineering and Applications, 19-21 Aug. 2011, China.
 - International Conference on Environmental, Biomedical and Biotechnology, ICEBB 2011, Shanghai, China. August 19 - 21, 2011
 - 1st Middle East Waste Management Forum, Abu Dhabi
 - 2011 International Conference on Water, Energy and Environment (ICWEE) that was held at the American University of Sharjah, United Arab Emirates on 14-17 November 2011
 - 2nd Middle East Waste Management Forum

Peer Reviewer For Reports and Scientific Papers:

- Reviewed a number of proposals and reports for KACST, SABIC. ..etc.
- Worked as a reviewer for scientific journals:
 - Int'l J. of Chemical Reactor Engineering. Perkely Electronic Press, and USA
 - J. Environmental Monitoring and Assessment.
 - J. of Environmental Technology
 - Arabian Journal for Science and Engineering, KFUPM
 - J. of Hazardous Materials.
 - University Of Sharjah Journal for Pure & Applied Science
 - Arabian J. of Geosciences...etc.
 - A number of ACS Journals.

Safety Coordinator

- Work as Lab Development and Safety Coordinator at the Earth Sciences Department.
- Worked as a safety coordinator at the Research Institute.

Memberships at Professional Societies

- International Water Association (IWA).
- American Chemical Society & the Saudi Intl Chemical Sciences Chapter. (ACS-SASC)
- Global Network for Environmental Science and Technology (GNEST), Greece.
- European Desalination Society (EDS). Italy.
- Intl Assoc. of Computer Science and Information Technology (IACSIT), Singapore.
- Air & Waste Management Association, Saudi Arabian Section (ETMA).
- Saudi Arabian International Group, American Society of Civil Engineers (SAIG/ASCE).
- Dhahran Geoscience Society (DGS), Dhahran, Saudi Arabia.
- Jordanian Engineers Association. (JEA)

AWARDS

1. Best Teaching Award. College of Sciences, KFUPM. 2011.

- 2. Nominee for the Best Research Award. Center for Environment and Water, Research Institute, KFUPM, 2007.
- 3. Long Services Award of 20 years, KFUPM. Dhahran, KSA. 2004.
- 4. Long Services Award of 10 years, KFUPM. Dhahran, KSA. 1994.

LIST OF PUBLICATIONS

- 1. **Tawabini, B.,** Khararjian, H. and Fayad, M. "Trihalomethanes (THMs) Formation in a distillation process". *Desalination*, 66 (1987), pp. 403-414.
- 2. Attar, K.; **B. Tawabini**; Pambid, E. and A. Abdel-Aal "Trace Elements in the Leachate of Automobile-Scrap Shredder Waste". *J. Waste Management*, Vol. 11, No. 4, (1991), pp. 283-286.
- 3. Fayad, N. and **Tawabini, B.** "Survey of Saudi Arabian Drinking Water for Trihalomethanes". *J. of Bull. Environ. Contam. Toxicol.* (1991) 6:305-312.
- Tawny H. M., N. Sridhar, B. Tawabini, N. M. Abbas and T. N. Rhys-Jones "Thermal Stability of Pt-Aluminide Coating on Nickel-Base Superalloys". *Journal of Materials Science* 27, (1992), pp 6463-6474.
- 5. Attar, K.; El-Faer, M., Rawdah, T. and **B. Tawabini** "Levels of Arsenic in Fish from the Arabian Gulf". *J. Marine Pollution Bull.*, Vol. 24, No. 2, (1992), pp 94-97.
- 6. Iob, F. Al-Yousef, **B. Tawabini**, A. Mohammed, and N. Abbas "Simultaneous Determination of Benzotriazole Copper Inhibitor and Microbiocidal Isothiazolinenones by HPLC". *Journal of Chromatography*, Vol. 661, Nos 1+2, Feb. (1994), pp. 245-248.
- 7. Iob A., **B. Tawabini** et al. "Hydrocarbon Group (PONA) Analysis of Reformate by FTIR Spectroscopy". *FUEL* journal, Vol. 75, No. 9, (1995), pp. 1060-1064.
- Iob A., B. Tawabini et al. "Prediction of Research Octane Number of Reformed Gasoline by FTIR Spectroscopy". <u>FUEL journal</u>, Vol. 74, No. 2, (1995), PP. 227-231.
- 9. **Tawabini** and H. Abdel-Aal "Extraction of Energy from Sabkha Deposits in Saudi Arabia". <u>Perspectives in Energy</u>, Vol. 4, (1997-1998), pp. 255-260.
- 10. Abuzaid, N.; Al-Malack, M.; Nakhla, G.; Essa, M. and **Tawabini, B.** "Effects of Dissolved Oxygen and Surfactant Treatment on the Sorptive Capacity of a Local Soil for Phenol'. *J. of Environmental Science & Health*, A35 (3), (2000), pp. 263-280.
- 11. **Tawabini B,** M. Al-Suwyian "Removal of Dimethyl Phthalate from Water by UV/H₂O₂ Process". Journal of Environmental Engineering and Science. Vol. 3 (2004), pp. 289 294.
- 12. **Tawabini, B.** "Treatment of Water Contaminated with D-n-BP by Photo-Fenton Process" Global NEST: The <u>International Journal. Special issue on Waste Water: Treatment</u>, Disposal and Reuse. Vol. 5, No. 1, pp. 23-28 (2004).
- Tawabini, B., Khararjian, H. and Fayad, M. "Trihalomethanes (THMs) Formation in a distillation process". <u>Proceeding of the 3rd World Congress on Desalination and Water Reuse</u>, Cannes, France, September 14-17, 1987. Vol. III. pp. 403-314.
- Iob A., B. Tawabini et al. "Analysis of Ethoxylated Sulfonates in the presence of crude oil". <u>Proceedings of the 3rd International Meeting of Chemists</u>, KFUPM, Dhahran, Saudi Arabia, (1989). pp 407-415.
- 15. **Tawabini** and N. Fayad "Simulated Laboratory Study of THMs Formation in a Seawater Distillation Process". <u>Proceedings of The International Conference on Chemistry in Industry</u>, Manama, Bahrain, 14-16 Nov. (1992). pp 107-122.
- Iob, F. Al-Yousef, B. Tawabini, A. Mohammed. and N. Abbas "Simultaneous Analysis of Benzotriazole Copper Inhibitor and Microbiocidal Isothiazolinenones By HPLC". <u>Proceedings of</u> <u>the 17th International Symposium on Column Liquid Chromatography</u>, Hamburg, Germany, May 9-14, 1993.
- Iob, M. A. Ali, **B. Tawabini** and N. Abbas "Prediction of PONA Contents of Reformate by FTIR Spectroscopy". Proceedings of the 2nd International Conference on Chemistry in Industry, Bahrain in October 24-26, (1994), pp. 1333-1337.

- B. Tawabini, M. Maslehuddin and O. Al-Amoudi "Evaluating the Performance of Portland and Blast Furnace Slag Cements". Proceedings of the <u>4th Saudi Engineering Conference</u>, King Abdul-Aziz University, Saudi Arabia, 5 - 8 Nov. (1995), pp. 225 - 232.
- B. Tawabini and H. Abdel-Aal "Energy Generated from Sabkha Deposits in Saudi Arabia". Proceedings of the 5th Saudi Engineering Conference, Umm Al-Qura University, Mekkah, Saudi Arabia, 1-4 March (1999), pp. 324-328.
- Tawabini B. and M. Al-Zahrani "Forecasting Water Demand in The City of Al-Khobar Using Time Series Modeling", Presented at the <u>1st Workshop on Water Resources Development and Water</u> <u>Conservation</u>", Organized by the Saudi Ministry of Water and Agriculture, Riyadh, 16-19 April (2000).
- Tawabini B., "Treatment of Water Contaminated with D-n-BP by Photo-Fenton Process". Proceedings of the 7th Conference on Environmental Science and Technology", Ermoupolis, Syros Island, Greece, 03 - 06 September (2001), pp. 861-867.
- 22. **Tawabini, B.,** M. Al-Suwaiyan, R. Allayla, M. Al-Malack, A. Abulikbash, and A. Al-Arfaj "Degradation of Dimethyl Phthalate By Fenton's Reagent", Proceedings of the <u>5th Chemistry in</u> <u>Industry Conference</u>, Manama, Bahrain, 14 – 16 October (2002).
- Tawabini, B., M. Al-Suwaiyan, R. Allayla, M. Al-Malack, A. Abulikbash, and A. Al-Arfaj, "Removal of Phthalates From Contaminated Water Using Ultraviolet Oxidation Process". Proceedings of the <u>6th Saudi Engineering Conference</u>,, KFUPM, Dhahran, Saudi Arabia, 14 - 17 December (2002), pp. 497 – 506.
- 24. **Tawabini, B.** "Overview on the In-Situ Oxidation Technology For the Treatment of Contaminated Sites". Proceedings of the <u>1st Engineering Conference</u>, Aden, Yemen, 16 18 December (2002).
- Tawabini, B., M. Al-Suwaiyan and R. Allayla "Remediation of Groundwater Contaminated with Phthalates by Advanced Oxidation Technology". Proceedings of the <u>6th Gulf Water Conference</u>, Riyadh, Saudi Arabia, 8 - 12 March (2003), pp. 197-205.
- 26. Tawabini, B., "The Removal of Dimethyl Phthalate (DMP) From Contaminated Water By Advanced Oxidation Processes In The Presence of Methanol". Proceedings of the <u>International</u> <u>Water Association (IWA) 3rd Conference on Oxidation Technologies for Water and Wastewater</u> <u>Treatment</u>. Goslar, Germany, 18 - 22 May (2003), pp. 958 - 963.
- Tawabini, B, "An Overview on Recent Development in Greywater Recycling Technology". Proceedings of the <u>2nd International Water Conference in the Arab Countries</u>. Beirut, Lebanon, 7 – 10 July (2003), pp. 139 – 148.
- 28. **Tawabini, B.,** M. Al-Suwaiyan, A. Abulikbash, M. Al-Malack, A. Al- Arfaj and R. Allayla "Optimization of UV/H₂O₂ Process Used to Treat Water Contaminated with Phthalate", presented at the <u>4th Specialty Conference on Environmental Progress</u>, Manama, Bahrain, 22 24 February (2004).
- 29. **Tawabini, B**. and Alnaizy R., "MTBE Removal from Contaminated Groundwater By Advanced Oxidation Processes", <u>6th International Conference and Exhibition on Chemistry in Industry</u>, September 27-29, 2004, Manama, Kingdom of Bahrain.
- R. Alnaizy and Tawabini, B., "Effects of Light Intensity in Hydrogen Peroxide Based AOP for MTBE Removal from Contaminated Groundwater", <u>AIChE 2004 Annual Meeting</u>, November 2004,
- 31. **Tawabini B.,** "Overview on Recent Developments in Grey Water Recycling Technology". <u>Arab</u> <u>Water World</u>. September-October 2003, Vol. 27, No. 5, pp. 06-10.
- 32. Tawabini, B and Ali Qahtani "The Environmental Pollution Resulted From Fuel Stations in Dammam City". Proceedings of the <u>National Conference For Environment: Between Protection and</u> <u>Pollution.</u> Al-Qassim University, Al-Qassim, 18 – 20 March (2007).
- 33. Chandana Senaratne, Emmanuel Y. Osei-Twum, B. S. Tawabini and Abdulrahman A. Al-Arfaj. "Organotin Compounds in the Marine Environment". <u>The 7th International Conference and Exhibition on Chemistry in Industry (CHEMINDIX)</u>. Manama, Bahrain. March 26-28, 2007.
- 34. Tawabini, B. N. M. Fayad, H. Al-Utaibi, L. Litorja and I. Kazi. "Investigating the Efficiency of MTBE Removal from Contaminated Groundwater by Advanced Oxidation Processes". <u>The 5th Specialty Conference on Environmental Progress in Oil & Petrochemical Industries" (EnviroArabia 2007).</u> Manama, Bahrain, April 23-25, 2007.

- 35. Mehanna N., Jaber, A., Sultan, S., and **B. Tawabini.** Determination of Total Organic Carbon (as non-purgable organic carbon) By ICP-AES. Proceedings EnviroArabia 2007, Manama, Bahrain, 22-25 April 2007.
- M. A. Morsy, Q. Al-Sharari, B. Tawabini and N. Baghli."Hydroxyl Radical Generation in Advanced Oxidation Processes: An ESR Investigation of MTBE Remediation". <u>The 41st Annual</u> <u>International Meeting</u>, University College London, UK, 6-10 April 2008.
- 37. **Tawabini, B.** "Services and capabilities of a standard environmental chemistry laboratory". Presented at the <u>Labtech 2008</u> Conference from October 20-22, 2008, Bahrain.
- Tawabini B., "The Impact of Groundwater Quality on the Removal of MTBE Using Advanced Oxidation Technology". Presented at the IWA international Conference. Germany from 30 March-03 April, 2009.
- Tawabini B., and A. Shaibani "Environmental Impact Assessment of Disposing Onshore Drilling Wastes in Sabkha Deposits". Presented at the 8th Saudi Meeting of Geosciences that will be held in Jeddah from 9 – 12 March 2009.
- 40. **Tawabini B.**, N. M. Fayad and M. Morsy "The Impact of Groundwater Quality on the Removal of MTBE Using Advanced Oxidation Technology". Journal of Water Science and Technology Journal. Volume 60 No. 8. (2009). pp 2161-2165.
- 41. **Tawabini B.** Industrial Wastes Generated at a Fuel Gas Station: A Case Study for Dammam, Saudi Arabia. Proceedings of the 2010 International Conference on Environmental Science and Development (CESD 2010). Singapore 26-28 February 2010.
- 42. **Tawabini, B., S.** Al-Khaldi, M. Atieh and M. Khaled. Removal of Mercury From Water By Multiwalled Carbon Nanotubes (MWCNTs). Journal of Water Science and Technology. Vol. 61. No. 3, 2010. pp. 591-598.
- 43. Muataz Ali Atieh, Omer Yahya Bakather, **Bassam S. Tawabini**, Alaadin A. Bukhari, Mazen Khaled, Mamdouh Alharthi, Mohammed Fettouhi, and Faraj Ahmad Abuilaiwi. "Removal of Chromium (III) from Water Using Modified and Nonmodified Carbon Nanotubes". Journal of Nanomaterials. Volume 2010 (2010), Article ID 232378, 9 pages.
- 44. M. Atieh, O. Bakatheer, **B. Tawabini**, A. Bukhari, Faraj Abuilaiwi, and M. Fattouhi. Effect of carboxylic Functional Group Functionalized on Carbon Nanotubes Surface on the removal of Lead from Water. Bioinorganic Chemistry and Applications. Dec. 2010. Volume 2010, Article ID 603978, 9 pages, doi:10.1155/2010/603978.
- 45. **B. Tawabini**, S. Al-Khaldi, M. Atieh, and M. Khaled. Assessing the Efficiency of Locally Produced Multi-Walled Carbon Nanotubes (MWCNTs) in Treating Water Contaminated with Mercury. Proceedings of EnviroArabia 2010 Conference. Manama, Bahrain, 18-21 April 2010.
- 46. **B. Tawabini**, S. Al-Khaldi, M. Khaled and M. Atieh, Removal of Arsenic from water by iron oxide nanoparticles impregnated on carbon nanotubes". Journal of Environmental Science and Health, Part A, Vol. 46. No. 03.February 2011, pp. 215-223.
- 47. **Tawabini**, B., and Abdulrazaq Zubair. Bromate control in phenol-contaminated water treated by UV and ozone processes. Desalination 267 (2011). Pages 16-19.
- 48. **Tawabini B**. "Environmental Management of Drilling Fluid Wastes: An Overvie". The ^{3rd} Joint SQU-JCCP Environmental Symposium. Sultan Qabou University, Oman. 19-21 Dec. 2010.
- R. Al-Sadeq, B. Tawabini, M. Makkawi, and A. Al-Shaibani. Assessment of Groundwater Quality in Tarout Island, Eastern Province, Saudi Arabia. The 9th Arabian Conference for Geosciences. <u>April</u> <u>26-28, 2011</u>. Saudi Society for Geosciences, Riyadh, KSA.
- 50. **B. Tawabini**. Potential Formation of Bromoform and Bromate in Blended Water Samples Disinfected with Chlorine and Ozone. Accepted for Presentation at the ICWEE2011, <u>14-17 Nov.</u> <u>2011</u>, American University of Sharjah, UAE.
- 51. **B. Tawabini**. Potential Formation of Bromoform and Bromate in Blended Water Samples Disinfected with Chlorine and Ozone. International Journal of Environmental Engineering (Under review),
- 52. Omar Hussein and **B. Tawabini**. Forecasting Of Ground Level-Ozone Exceedences in Eastern Province of Saudi Arabia Using Zaitun Time Series Model. Jubail International Environment Conference.Royal Commission for Jubail and Yanbu (RCJY), <u>5-6 June, 2011</u>, Jubail, KSA.

- 53. B. Tawabini and Mohammed Mutair. Chlroination By-products formed during disinfecting Blended Waters with chlorine. Proceedings of the 11th Hajj Meeting. Hajj Research Institute. Um Al-Qura University. <u>Mekkah, 12-16 June 2011</u>. Saudi Arabia
- 54. Chanbasha Basheer; Abdulmumin A. Nuhu; Abdul Rahman Al-Arfaj; **B. Tawabini**; Mohamed Qurban; Zahid Muhammed. Baseline organotin concentrations in sediment and water samples from Saudi Arabian Southern Coast of the Arabian Gulf. Marine Pollution Bulletin. (Submitted).
- 55. **B. Tawabini**. M. Al-Mutair, and A. Bukhari. Formation Potential of Trihalomethanes (THMs) in Blended Water Treated with Chlorine. J. of Water Reuse and Desalination. Vol. 01, No. 3, 2011, pp. 172-178.

BOOKS

- 1. Environmental Management & Technologies. M. Sievers, B. Tawabini and M. Al-Sharif. Al-Atheen. Amman, Jordan. ISBN: 978-9957-546-00-7, Nov. 2010.
- 2. PhD Dissertation. Treatment of Water Contaminated with Dimethyl Phthalate By Fenton, Photo-Fenton and UV/H₂O₂ Processes. Civil Eng. Dept., KFUPM, Dhahran, KSA. Feb. 2002.
- 3. MSc. Thesis. Trihalomethanes (THMs) Formation in a Distillation Process. Civil Eng. Dept., KFUPM, Dhahran, KSA. Jan. 1987.