

**GAMAL E. O. ELHAG-IDRIS, MCIC, C. CHEM.**

100 High Park Ave., Apt 211, Toronto, ON

Cell phone: (416) 996-9105

E-mail: [gamal.omer@gmail.com](mailto:gamal.omer@gmail.com)

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**Chemist**

Detail oriental chemist, with expertise in the formulation and characterization of material properties as well as coordinate in R&D. Adopt the developing new application and products, generating intellectual properties and providing technical solutions. Practiced in instrument monitoring and analytical method performance.

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**Summary of Qualification**

- Over 20 years of water chemistry experience with strong knowledge of water technology, pollution control, chemical oceanography and environmental chemistry
- Expertise in finding solution troubleshooting of Reverse Osmoses water System and boiler water chemistry
- Managed chemical waste and R&D experience with strong knowledge of GMP, FDA and MOE guidelines
- Managed purchasing of chemicals for manufacturing and R&D from several suppliers while maximizing resources
- Proven ability to work in a fast-paced, multi-task environment with quick adaptation to changing priorities.
- Authored many technical papers in oceanography, environmental engineering, industrial wastewater e.g. mining wastewater, pharmaceutical drugs waste, desalination, oil bioremediation
- Designed and performed various chemical formulation R&D used for electrophoreses application, adhesive polymerization and water chemistry test.
- Graduate study project in the role of organo-metallic compounds in estuarine sediments using sequential extraction method
- Expertise in the chemical parameters and engineering operation procedure of wastewater treatment plant.
- Computer skills: familiar with Microsoft Office, Windows and Apple System application

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**Employment History**

Meridian Security Solution Inc. RUSSELL SECURITY SERVICES INC & Magnum Protective Services, Toronto	(2016-2018)
Test Technician, Siemens Canada (MicroCel Manufacturing), Toronto	(1997-2015)
SIEMENS CANADA, MICROCEL MANUFACTURING, TORONTO, ON	(1997-2015)
(Siemens purchased Bayer Canada)	(2008-2015)
Company purchased by Bayer Canada, MicroCel Manufacturing	(2004-2008)
Hired by Visible Genetics Inc., MicroCel Manufacturing	(1998-2003)
Started at Drake Agency, Visible Genetics Inc., MicroCel Manufacturing	(1997-1998)
<ul style="list-style-type: none"><li>▪ Performed daily testing of Reverse Osmosis System, boiler water and detergent</li><li>▪ Located and diagnosed trouble and tests of RO system, boiler water and HVAC water chemistry</li><li>▪ Calibration equipment used for the water test as per control plan to be enable testing</li><li>▪ Prepared procedures and writing technical reports</li><li>▪ Conduct lab research to support production e.g. chemical formulation use in Electrophoreses</li><li>▪ Provided: scientific technical expertise in the areas of chemical waste management &amp; chemical safety</li><li>▪ Arranged order chemicals for manufacturing from different suppliers</li><li>▪ Maintained regular inventory of chemical expiration and quantities with no delay</li><li>▪ Trained employees on chemical safety and what to do in-case of chemical spills</li><li>▪ Reviewed MOE Regulations: importing chemical e.g. Domestic Substances List (DSL), Canada</li><li>▪ Conducted report into the Identification and destruction of sodium azide waste used in by Siemens</li><li>▪ Provided scientific &amp; technical advice on matters of chemical waste, collection, storage and disposal</li><li>▪ Designed experimental and procedure of removing adhesive from MicroCel as way of recycling</li><li>▪ As Pandemic coordinator to ensure that workplace follows the requirements regulations</li><li>▪ As information security advisor at the facility provide advise fit to business purpose</li><li>▪ Completed and submitted in time the monthly safety and Information Security (IS) report</li><li>▪ Reviewed the degree of polymerization of adhesive and acrylamide using FT-IR analysis</li></ul>	

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**Other Experience**

- Postgraduate Researcher Project: the role of organo-metallic compounds in estuarine sediments, University of Liverpool, UK
- Undergraduate Research Project, King Abdul-Aziz University, Jeddah, Saudi Arabia
- Seminar B.Sc. project report: chemical parameters and engineering operation of wastewater treatment plant, Jeddah
  - Seminar presentation project: silicon and phosphorus in seawater

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**Training & Courses**

- 2016. Trained Security Guard, Meridian Security Solution Inc., Toronto, Canada
- 2015. Lee Hecht Harrison, Toronto, Canada
- Hazardous Materials in the Workplace; Chemical Process Safety; The Oil and Gas Industry Overview: Version 3; Storm Water Pollution Prevention; Occupational Health and Safety Awareness: Ontario Reg. 297/13 – Canada; Chlorine Safety; Toxicology (HAZWOPER); The Biotechnology Industry Overview: Version 1; Introduction to Industrial Hygiene; Introduction to Green Business and Sustainability; Asbestos; Used Oil Management; Hazards to Outdoor Workers; Trenching and Excavation Safety; Information Security Awareness; Mold Awareness; Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
- 2013. Information Security Training, Toronto, Siemens Canada
- 2010. Forensic Evidence, Training Seminar, Toronto Police, Canada
- 2009. Social Engineering (information Security), Toronto, Siemens Canada

- 2009. Fire Safety, Toronto, Siemens Canada
- 2009. Supervisor Safety Compliance, Toronto, Siemens Canada
- 2009. Critical and Creative Thinking Course, George Brown College, Toronto, Canada
- 2008. Laboratory Safety course, The Chemical Institute of Canada, Toronto, Canada
- 2007. Civilian Police College Program, Toronto, Canada
- 2007. Introduction to Pharmacology, George Brown College, Toronto, Canada
- 2005. Forensic Anthropology, George Brown College, Toronto, Canada
- 2003. Short Management Reports, Ryerson University, Toronto, Canada

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#### **Certification**

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- Redhead Health & Safety Working at Height: Principles of Fall Protection, Ontario, Canada
- Licence Security Guard, Service, Ontario, Canada
- Certified Charter Chemist, ACPO, ON, Canada
- Certified CMOS Accredited Consultant: Chemical Oceanography, Pollution Control & Water Technology
- Certified TDG (Transportation of Dangerous Goods), Siemens Canada
- First Aid Training, St. John Ambulance, Toronto
- WHMIS Training

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#### **Professional Membership**

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- Association of the Chemical Profession of Ontario, ACPO, Canada
- Ultrapure water journal industrial water treatment, USA
- Canadian Meteorological and Oceanographic Society, CMOS, Canada
- Member of the Canadian Institute of Chemistry, MCIC, Canada

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#### **Education and Professional Development**

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- Postgraduate Certificate Environmental Engineering Science: Ryerson University, Toronto, Canada
- Postgraduate Diploma in Marine Pollution Chemistry: University of Liverpool, Liverpool, UK
- BSc. Marine Chemistry: King Abdul-Aziz University, Jeddah, Saudi Arabia
- Chemicals and Health by Johns Hopkins University, USA, Coursera Certificate
- Foundations for Global Health Responders. University of Colorado, School of Medicine, USA, Coursera Certificate
- Introduction to Cyber Security, The Open University, UK, FutureLearn Certificate
- Introduction to the Science of Cancer, The Ohio State University, College of Medicine, USA, Coursera Certificate
- The Business of Mining, TBOMx, Curtin University, Australia, edX Certificate
- Cancer in the 21st Century, University of Glasgow, UK, FutureLearn Certificate
- Shipwrecks and Submerged Worlds: Maritime Archaeology, University of Southampton, UK, FutureLearn Certificate
- Cancer Immunotherapy: a Step Change in Cancer Treatment, University of Birmingham, UK, FutureLearn Certificate
- Inside Cancer: How Genes Influence Cancer Development, University of Bath, UK, FutureLearn Certificate
- The Science of Medicines, Monash University, Australia, FutureLearn Certificate
- Introduction to the Biology of Cancer, Johns Hopkins University, USA, Coursera Certificate
- Water for Liveable and Resilient Cities, Monash University, Australia, FutureLearn Certificate
- Doping: Sports, Organizations and Sciences, University of Lausanne, Switzerland, Coursera Certificate
- Good Brain, Bad Brain: Parkinson's Disease, University of Birmingham, UK, FutureLearn Certificate
- Monitoring Climate from Space, European Space Agency, FutureLearn Certificate
- Earth Observation from Space: The Optical View, European Space Agency, FutureLearn Certificate
- Epigenetic Control of Gene Expression by The University of Melbourne, Australia, Coursera Certificate
- Monitoring the Oceans from Space, EUMETSAT, FutureLearn Certificate
- Oil & Gas Industry Operations and Markets, Duke University, USA, Coursera Certificate

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#### **Selected List of Publications**

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- Gamal E. Omer Elhag-Idris; Nedam Abed "Endocrine Disruptors: Part 2, Safe Disposals of Pharmaceuticals into the Environment" INDUSTRIAL WATER TREATMENT MAGAZINE, Vol. 31, (1), 28-32, (May/June 2014),
- Gamal E. Omer Elhag-Idris; Nedam Abed "Endocrine Disruptors: Part 1, Pharmaceutical Drugs Pathways, Risks and Controlling Disposal to Environment" INDUSTRIAL WATER TREATMENT MAGAZINE, Vol. 31, (2), 23-28, (March/ April 2014).
- Gamal E. Omer Elhag-Idris; Nedam Abed "Neurotoxicological Risks Related to Mining Wastewater" INDUSTRIAL WATER TREATMENT MAGAZINE, Vol. 30 (4) 27-32. (July/August 2013)
- Gamal E. Omer Elhag-Idris Nedam Abed "Planning for the Sustainability of the Marine Environment using RO Membrane Desalination Technology", CMOS Bulletin, 35 (6) 174-181 (December/ 2007).
- Gamal E. Omer Elhag-Idris, Nedam Abed "Water Treatment Issues and Technology Trends" Ultrapure Water Journal, 24 (8) 32-36 (November/ 2007).
- Gamal E. Omer Elhag-Idris "Control biofilm formation in industrial water treatment systems" Ultrapure Water Journal, 23 (2) 38-42 (March/ 2006).
- Gamal E. Omer Elhag-Idris "A Review on Identifying and Controlling Contaminants in Drinking Water" Ultrapure Water Journal, 21 (8) 42-45 (November/ 2004).
- Gamal E. Omer Elhag-Idris "Methods of Controlling Industrial Wastewater Disposal into the Marine Environment" CMOS Bulletin, 32 (3) 84-86 (June/ 2004),