



YOUR NAME HESHAM MOHAMED ABDEL-FATTAH SOLIMAN

CURRENT POSITION PROFESSOR OF MATERIALS SCIENCES

<p>PERSONAL INFORMATION</p>	<p>Full Name: Affiliations: Address: Mobile No.: E-mail: Important links:</p>	<p>Hesham Mohamed Abdel-Fattah Soliman Advanced Technology and New Materials Research Institute (ATNMRI), City of Scientific Research and Technological Applications (SRTA-City) Universities and research Centre District, New Borg El Arab City, P.O. BOX 21934 Alexandria, Alexandria, Egypt +201005294642 h.soliman@srtacity.sci.eg</p>
<p>EDUCATION</p>	<p>Ph.D. (1999): Channel link between Institute of Science and Technology (UMIST), Manchester, UK and Alexandria University.</p> <p>M.Sc. (1991): Chemistry Department, Faculty of Science, Alexandria University.</p> <p>B.Sc. (1985): Chemistry Department, Faculty of Science, Alexandria University, (Honors).</p> <p>Secondary School (1978-1981): Al-Anfoushy Secondary School, Alexandria, Egypt.</p> <p>Preparatory School (1975-1978): Al-Sawahel Preparatory School, Alexandria, Egypt.</p> <p>Elementary School (1969-1975): Al-Menaa Al-Sharky Elementary School, Alexandria, Egypt.</p>	
<p>ACTIVITIES</p>	<p>September 11-14, 2017: Daejeon Global Innovation Forum, UNESCO-WTA International Training Workshop, and 14th WTA Daejeon Hi-Tech Fair & Business Conference, The INNOPOLIS Foundation, Daejeon, South Korea.</p> <p>September 10-21, 2012: 9th Training Program for Science & Technology Park (STP) Development, Korea's 39-year Experience of STPs, September 10-21, 2012, The INNOPOLIS Foundation, Daejeon, South Korea.</p> <p>September 2011 – June 2012: Adjunct Faculty member at Materials</p>	

Engineering Department, Egyptian Japanese University for Science and Technology.

July 26-27, 2011: Training for the Hall Effect and Seebeck Effect Measurement Systems at MMR Technologies Incorporation (1400 N Shoreline Blvd, Suite A5, Mountain View, CA 94043), USA.

July 24, 2011: Training for the operations of Solar Simulation System at Photo Emission Technology Incorporation (PET), USA.

May 2009 – March 2010: Guest Professor at Functional Materials Division and Nano Characterization Laboratory, ICT School, Royal Institute of Technology (KTH), Kista – Stockholm – Sweden.

May 2007-August 2007: Visiting Scientist, German Aerospace Center (DLR), 51170 Köln, Germany, Thermoelectric Materials and Systems Group, characterization of thermoelectric properties of nanostructured thermoelectric thick films.

June 2005-May 2006: Visiting scientist, Royal Institute of Technology, KTH Department of Materials Science and Engineering Materials Chemistry, KTH-Brinellvagen 23, SE-100 44 Stockholm, Sweden. Fabrication of bismuth telluride thermoelectric materials. IMS project-Contract FP6-512805.

May 07-22, 2006: Training in JEOL, Japan for SEM, TEM and AFM Characterization Techniques.

February 2002-April 2004: Visiting scientist, Corrosion and Protection Centre, University of Manchester Institute of Science and Technology UMIST, P.O. Box 88, Manchester M60 1QD, UK. Chromium-free conversion coatings for aluminium aerospace alloys, a project sponsored by Amity U.K. International Limited.

December 2000-June 2001: Visiting scientist, Corrosion and Protection Centre, University of Manchester Institute of Science and Technology UMIST, P.O. Box 88, Manchester M60 1QD, UK. Sol-gel conversion coatings for aluminium aerospace alloys, a project sponsored by Prof. G.E. Thompson.

January 2020 – Present: Professor of Materials Sciences, Nanotechnology and New Composite Materials Department, City of Scientific Research and

	<p>Technological Applications (SRTA-City).</p> <p>November 2013-June 2014: Professor and Head of Nanotechnology and New Composite Materials Department, City of Scientific Research and Technological Applications (SRTA-City).</p> <p>June 2008-November 2013: Associate professor and Acting Head of Nanotechnology and New Composite Materials Department, City of Scientific Research and Technological Applications (SRTA-City).</p> <p>October 2008-January 2010: Framework Programme Focal Point representing City of Scientific Research and Technological Applications (SRTA-City).</p>
	<p>10 June 2014 – 8 January 2020: Dean of Advanced Technology and New Materials Research Institute, City of Scientific Research and Technological Applications (SRTA-City).</p> <p>September 19-24, 2016: Acting Director of City of Scientific Research and Technological Applications (SRTA-City).</p>
<p>GRANTS & AWARDS</p>	<p>-Biological and physiochemical denitrification of drinking groundwater in Lower Egypt, ASTF (Arab Science & Technology Foundation) Project – Contract 12-06, 2006, Alexandria.</p> <p>-Nanostructured Thick Films as Unconventional Alternatives for Power Generators and Coolers, Basic and Applied Research Grant [(Science and Technology Development Fund (STDF) – project number: 277], 2008, Alexandria.</p> <p>-Head of The Disciplinary Board for the members of the Research Authority.</p> <p>-Member of Permanent Scientific Committee for Materials Science and Technology for Centers, Institutes and Research Bodies.</p> <p>-Acknowledgment and Appreciation from Chemistry Department, Faculty of Science, Al-Azhar University, 2016.</p> <p>-Faculty of Science Alumni Association, Alexandria University, Congratulation Certificate, 24-12-2015.</p> <p>-Achievement Award from Minister of Higher Education and Scientific</p>

	<p>Research Prof. Wael Mohamed El-Degwy, In Recognition and Appreciation of Research Contribution and Great Scientific Achievement of Distinguished Publications, 2014.</p> <p>-Winner of the annual Corrosion and Protection Centre Laboratory Safety Competition (27 September, 2002). The competition included: Risk and COSHH assessments, Housekeeping, Storage of chemicals, and proper use of the Fume Cupboard.</p>
<p>LIST OF PUBLICATIONS</p>	<ol style="list-style-type: none"> 1. “<i>The nanomaterials and recent progress in biosensing systems: A review</i>”, A.A. Nayl, A.I. Abd-Elhamid, Ahmed Y. El-Moghazy, Mohamed Hussin, M.A. Abu-Saied, Ahmed A. El-Shanshory, and <u>Hesham M.A. Soliman</u>, Trends in Environmental Analytical Chemistry, 2020, 26, e00087. doi.org/10.1016/j.teac.2020.e00087 2. “<i>A novel method for highly effective removal and determination of binary cationic dyes in aqueous media using a cotton–graphene oxide composite</i>”, A.A. Nayl, A.I. Abd-Elhamid, M.A. Abu-Saied, Ahmed A. El-Shanshory, <u>Hesham M.A. Soliman</u>, Magda A. Akl, and H.F. Aly, RSC Adv., 2020, 10, 7791-7802. doi.10.1039/C9RA09872K 3. “<i>Adsorption of Methylene Blue Dye on Hydrothermally Prepared Tungsten Oxide Nanosheets</i>”, A.S. Doma, Nazly Hassan, A.I. Abd-Elhamid, and <u>Hesham M. A. Soliman</u>, Egypt. J. Chem. Vol. 63, No. 2, pp. 483-498, 2020. doi.10.21608/ejchem.2020.18997.2171 4. “<i>Enhanced removal of cationic dye by eco-friendly activated biochar derived from rice straw</i>”, A. I. Abd-Elhamid, Mohamed Emran, M. H. El-Sadek, Ahmed A. El-Shanshory, <u>Hesham M. A. Soliman</u>, M. A. Akl, and Mohamed Rashad, Applied Water Science, 10, 1, January 2020, Article 45, 11 pages. ISSN: 2190-5487 (Print) 2190-5495 (Online), doi.org/10.1007/s13201-019-1128-0 5. “<i>Facile and simple deposition of cobalt oxide onto oxidized multiwall carbon nanotubes for electrocatalytic oxygen reduction</i>”, Ahmed Zaki Al-Hakemy, Abu Bakr Ahmed Amine Nassr, Ahmed Hosny Naggar, Mohamed Salaheldin Elnouby, <u>Hesham Mohamed Abd El-Fattah Soliman</u>, and Mahmoud Ahmed

Taher, Journal of Materials Science: Materials in Electronics, 31(2) 1391 – 1402, 2020.

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6. “*Facile Hydrothermal Synthesis of Sm and Eu doped TiO₂/Graphene Oxide Nanocomposites for Photocatalytic Applications*”, Mariam Sh. Gohr, Hoda S. Hafez, Mona M. Saif, Hesham M. A. Soliman, and M. S. A. Abdel-Mottaleb, Egypt. J. Chem. Vol. 63, No. 4, pp. 7-8, 2020.
doi.10.21608/ejchem.2019.15112.1914
7. “*Fabrication of polyacrylonitrile/ β -cyclodextrin/graphene oxide nanofibers composite as an efficient adsorbent for cationic dye*”, A.I. Abd-Elhamid, M.R. El-Aassar, Gomaa F. El Fawal, Hesham M.A. Soliman, Environmental Nanotechnology, Monitoring & Management 11 (2019) 100207, 1-10.
doi.org/10.1016/j.enmm.2018.100207
8. “*Hydrothermal Preparation and Characterization of Co-based Layered Double Hydroxide and their Catalytic Activity*”, A.I. Abd-Elhamid, Hesham M.A. Soliman, H.F. Aly, J. Advances in Nanomaterials (JAN), 4(1), March (2019) 1-10. <https://dx.doi.org/10.22606/jan.2019.41001>
9. “*Decontamination of organic pollutants from aqueous media using cotton fiber–graphene oxide composite, utilizing batch and filter adsorption techniques: a comparative study*”, A.I. Abd-Elhamid, A.A. Nayl, Ahmed A. El-Shanshory, Hesham M.A. Soliman, H. F. Aly, The Royal Society of Chemistry Advances (RSC Adv.), 2019, 9, 5770–5785.
doi: 10.1039/c8ra10449b
10. “*Evaluation of graphene oxide-activated carbon as effective composite adsorbent toward the removal of cationic dyes: Composite preparation, characterization and adsorption parameters*”, A.I. Abd-Elhamid, Elbadawy A. Kamoun, Ahmed A. El-Shanshory, Hesham M.A. Soliman, H.F. Aly, J. Mol. Liq. 279 (2019) 530–539. doi.org/10.1016/j.molliq.2019.01.162
11. “*Development of sponge/graphene oxide composite as eco-friendly filter to remove methylene blue from aqueous media*”, A.A. Nayl, A.I. Abd-Elhamid, Ahmed A. El-Shanshory, Hesham M.A. Soliman, El-Refaie Kenawy, H.F. Aly, Applied Surface Science, Volume 496, 1 December 2019, Article number 143676.

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12. “*PREPARATION AND CHARACTERIZATION OF MANGANESE OXIDE*”

BASED GRAPHITE USING WET ATTRITION TECHNIQUE AND ITS APPLICATION IN REMOVAL OF METHYLENE BLUE DYE FROM AQUEOUS SOLUTION", A.I. Abd-Elhamid, and Hesham M.A. Soliman, Research and Reviews in Materials Science and Chemistry, Vol. 8, Issue 1, 2018, Pages 21-57, 2018. ISSN 2319-6920, DOI <https://doi.org/10.2478/s11532-011-0086-7>

13. *"Thermo-and pH-sensitive hydrogel membranes composed of poly(N-isopropylacrylamide)-hyaluronan for biomedical applications: Influence of hyaluronan incorporation on the membrane properties"*, Elbadawy A. Kamoun, Alaa Fahmy, Tarek H. Taha, Esmail M. El-Fakharany, Mohamed Makram, Hesham M.A. Soliman, and Hassan Shehata, Int. J. Biol. Macromol., 106(2018)158–167. doi.org/10.1016/j.ijbiomac.2017.08.011
14. *"Effect of reducing agent strength on the growth and thermoelectric performance of nanocrystalline bismuth telluride"*, Asmaa Nour, Nazly Hassan, Heba M. Refaat, Hesham M.A. Soliman, and A. El-Dissouky, Mater. Res. Express 5 (2018) 035033, 1 – 13. doi.org/10.1088/2053-1591/aab337
15. *"Graphene oxide: Follow the oxidation mechanism and its application in water treatment"*, A.I. Abd-Elhamid, H.F. Aly, Hesham M.A. Soliman, Ahmed A. El-Shanshory, J. Mol. Liq. 265 (2018) 226–237. doi.org/10.1016/j.molliq.2018.05.127
16. *"Electrodeposited cobalt oxide nanoparticles modified carbon nanotubes as a non-precious catalyst electrode for oxygen reduction reaction"*, Ahmed Zaki Al-Hakemy, Abu Bakr Ahmed Amine Nassr, Ahmed Hosny Naggat Mohamed Salaheldin Elnouby, Hesham M.A. Soliman, and Mahmoud Ahmed Taher, J. Appl. Electrochem. 47(2) (2017), 183–195. doi:10.1007/s10800-016-1027-0
17. *"Structure evaluation of bismuth telluride (Bi₂Te₃) nanoparticles with enhanced Seebeck coefficient and low thermal conductivity"*, Mohamed M. Rashad, Ali El-Dissouky, Hesham M.A. Soliman, Ahmed M. Elseman, Heba M. Refaat, and Asmaa Ebrahim, Materials Research Innovations, pages: 1-9, 2017. ISSN: 1432-8917 (Print) 1433-075X (Online), doi: 10.1080/14328917.2017.1320838
18. *"Fouling-resistant brush-like oligomers of poly(3-aminophenol)"*, Norhan Nady, Noha Salem, Ahmed H. El-Shazly, Hesham M. A. Soliman, and Sherif H. Kandil, Desalin. Water Treat., 73(2017)237–248. doi:10.5004/dwt.2017.20688
19. *"Protein-Repellence PES Membranes Using Bio-grafting of Ortho-*

aminophenol”, Norhan Nady, Ahmed H. El-Shazly, Hesham M.A. Soliman, and Sherif H. Kandil, *Polymers* (2016), 8(8), 306. doi:10.3390/polym8080306

20. “*Synthesis, Characterization, 3D Modeling, Nano Structures, Anti- Microbial and-Anti Cancer Activity Studies of Metal (II) Chelates of a Novel Bioactive Schiff Base Ligand Derived from Sulphaquinoxaline*”, Tarek M.A. Ismail, Hesham M.A. Soliman, Samy M. Abu-El-Wafa, and Doaa F. Sallam, *Journal of Chemical, Biological and Physical Sciences, JCBPS; Section A*; May 2016 – July 2016, Vol. 6, No. 3; 751-776. E- ISSN: 2249 –1929
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25. “*Fabrication of Congo Red/Oxidized Porous Silicon (CR/OPS) pH-Sensors*”, Abdel-Hady Kashyout, Hesham M.A. Soliman, Marwa Nabil, and Ahmed A. Bishara, *Materials Sciences and Applications*, 2013, 4, pp. 79-87. doi:10.4236/msa.2013.48A011, ISSN: 2153-117X
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35. "Preparation and characterization of DC sputtered molybdenum thin films"; Abd El-Hady B. Kashyout, Hesham M.A. Soliman, Hanaa Abou Gabal, Poussy Aly Ibrahima, Marwa Fathy; Alex. Eng. J. 50 (1) (2011) pp. 57-63. doi:10.1016/j.aej.2011.01.009, ISSN: 1110-0168
36. "Dimensionally Stable $Sn_{1-x-y}Ir_xSb_yO_{2+2.5y}$ Anodes for Acidic Water Electrolysis", A. A. El-Moneim and H.M.A. Soliman, Int. J. of Sustainable Water and Environmental Systems 2 (1) (2011) pp. 43-48. doi:10.5383/swes.02.01.006, ISSN: 1923-7537
37. "Electrochemical deposition and optimization of thermoelectric nanostructured bismuth telluride thick films", Hesham M.A. Soliman and A.B. Kashyout, Engineering 3 (6) (2011) pp. 659-667. doi: 10.4236/eng.2011.36079, ISSN: 1947-3931
38. "Preparation and Characterizations of Tungsten Oxide Electrochromic Nanomaterials", H.M.A. Soliman, A.B. Kashyout, Mohamed S. El Nouby, and A. M. Abosehly, J. Mater. Sci.: Mater. Electron. 21 (12) (2010) pp. 1313-1321. doi: 10.1007/s10854-010-0068-0, ISSN: 0957-4522, ISI: 000284256400015
39. "Fabrication of ZnO and ZnO:Sb Nanoparticles for Gas Sensor Applications"; A.B. Kashyout, Hesham M.A. Soliman, H. Shokry Hassan, and A.M. Abosehly; J. Nanomaterials 2010 (2010), Article ID 341841, 8 pages. doi:10.1155/2010/341841, ISSN: 1687-4110, ISI: 000283181300001
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41. "Annealing and Alloying Effects on Nanostructured Bismuth Telluride Thick Films"; Shanghua Li, Jian Zhou, Muhammet S. Toprak, Hesham M.A. Soliman, Mamoun Muhammed, Dieter Platzek, Pawel Ziolkowski, and Eckhard Müller; Chem. Mater. 20 (13) (2008) 4403.
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46. "Comparative Study of Ionic Association of Cobalt (II) Complexes of Acetonethiosemicarbazone and Acetophenonethiosemicarbazone Chlorides in Methanol from Conductance Measurements at 25°C"; N.H. El-Hammamy and H.M.A. Soliman; Egypt. J. Chem. 49 (5) (2006) 617.

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Derivatives"; E.A. Hamed, S.A. Sallam, A.M. Ahmed and H.M.A. Soliman; Bull. Electrochem. **10** (11-12) Nov-Dec (1994) 493.

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