



MARWA FATHY IBRAHIM BAHNASE

ASSOCIATE PROFESSOR

PERSONAL INFORMATION	<p>Full Name: MarwaFathy Ibrahim Bahnase</p> <p>Affiliations: Electronic Materials Department, Advanced Technology and New Materials Institute, City of Scientific Research and Technological Applications (SRTA-City)</p> <p>Address: Universities and Research Center District, New Borg El-Arab, 21934, Alexandria – Egypt.</p> <p>Mobile No.: 01221381247</p> <p>E-mail: mbahnase@srtacity.sci.eg, mrwfathy@gmail.com</p> <p>Important links: https://scholar.google.com/citations?user=-ZV38uIAAAJ&hl=en</p>
EDUCATION	<p>Ph.D, Materials Science, 2010, Institute of Graduate Studies and Research – Alexandria University</p> <p>M.Sc, Materials Science, 2005, Institute of Graduate Studies and Research – Alexandria University</p> <p>Diploma, Materials Science, 2002, Institute of Graduate Studies and Research – Alexandria University</p> <p>B.Sc, Chemistry & Physics, 1999, Faculty of Science – Alexandria University.</p>
ACTIVITIES	<p>Scientific Activities</p> <p><u>PRESENTATIONS</u></p> <p>Concentrated Solar Power (CSP) for High Efficiency Energy Production and Water Desalination, 17th Arab International Conference on Materials Science “Materials and its Novel Applications” 18-20 December 2017, Alexandria, Egypt.</p>

	<p>Metal-Free Counter Electrode for High-Performance Dye-Sensitized Solar Cells", 6th International Chemistry Conference, 8-10 November 2016, Riyadh, Saudi Arabia.</p> <p>"Fabrication of High Efficient Thin Film Solar Cells using Electrodeposition Technique ", BIT's 6th Annual World Congress of Nano Science & Technology – 26-28 October 2016-Singapore.</p> <p>"Optimizing the preparation parameters of GO and r-GO using improved method", NN15 – 12th International conferences on Nanosciences& Nanotechnologies- 7-10 July 2015 - Thessaloniki, Greece.</p> <p>"Synthesis of $\text{In}_x\text{Ga}_{1-x}\text{N}$ alloy using simple and low cost technique", NN15 – 12th International conferences on Nanosciences& Nanotechnologies- 7-10 July 2015 - Thessaloniki, Greece.</p> <p>"Optimizing the Preparation parameters of anatase TiO_2 nanotubes from Titanium Dioxide nanopowder", The First International Conference on New Horizons in Basic and Applied Science, 21-23 September 2013, Hurghada, Egypt.</p> <p>"Optimizing the Electrospinning Process Parameters of Polymethylacrylate for Quasi Solid State DSSCs", The First International Conference on New Horizons in Basic and Applied Science, 21-23 September 2013, Hurghada, Egypt.</p> <p>"Polymer electrolyte based on electrospun PMA-PVDF blend for quasi solid state dye sensitized solar cells", The First International Conference on New Horizons in Basic and Applied Science, 21-23 September 2013, Hurghada, Egypt.</p> <p>"Electrodeposition of CdS thin film from non-aqueous solution for CdS/SnS solar cells" The First International Conference on New Horizons in Basic and Applied Science, 21-23 September 2013, Hurghada, Egypt.</p>
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“Synthesis and Characterization of CdSe, PbSe and CdTe Quantum Dots for Solar Energy Conversion”, Solar Energy for World Peace Conference, 17-19 August 2013, Istanbul, Turkey.

“Effect of hydrothermal temperature on the properties of TiO₂ nanotubes”, Solar Energy for World Peace Conference, 17-19 August 2013, Istanbul, Turkey.

“Optimizing the electrodeposition parameters of SnS thin film from non-aqueous solution for CdS/SnS solar cells”, Solar Energy for World Peace Conference, 17-19 August 2013, Istanbul, Turkey.

“Fabrication and Characterization of Electrospun Nanofiber Polymethylacrylate as Quasi Solid Electrolyte for DSSCs”, Fifth Saudi Science Conference, 16- 18 April 2012, Saudi Arabia.

“Preparation of RF Sputtered Transparent, High Conductive Tin-doped Indium Oxide Thin Films”, International Conference on Sustainable Energy: Technologies, Materials and Environmental Issues, 29 October -1 November 2007, Cairo, Egypt.

PROJECTS

Member in the team of project: “**RE Alliance - Made in Egypt (REAL-Egy)**”, RE-Alliance, 2019.

Member in the team of project: “**Study to survey the possibilities in the field of Science and Nanotechnology in the Arab world**”, Center of Scientific Excellence, Advanced characterize and future studies in the fields of smart cities and new and renewable energies, Creative and policies of the Knowledge-Based Economy, Arabic Organization for Educational, Cultural and Scientific, 2017.

	<p>Member in the team of project: “Center of Excellence in Advanced and Future Studies for Smart Cities, New and Renewable Energies and Innovation Policy in Knowledge Based Economy (CEASC) ”, “STDF Grants for Centers of Scientific Excellence (STDF-CSE), 2013-2017.</p> <p>Member in the team of project: “Multipurpose Applications by Thermodynamic Solar (MATS)”, FP7-ENERGY, 2011-2018.</p> <p>Member in the team of project: "Synthesis of thin films to produce photovoltaic solar cells", funded by the Egyptian science and technology development fund (STDF), 1396, 2010-2016.</p> <p>Member in the team of project: "Quantum Dot Nanomaterials Dye Sensitized Solar Cells" funded by the Egyptian science and technology development fund (STDF), 1414, 2010-2015.</p> <p>Member in the team of project: "Quantum Dot Nanomaterials for Solar Cells Applications", Funded by Swedish International Development Agency (SEDA/MENA), 2008-2011.</p> <p>Member in the team of project: "Development of Nanomaterials for Drug Delivery Systems, Sensors and Photovoltaic Applications", funded by Research Enhancement Program (ALEX REP), Alexandria University, 2008-2010.</p> <p>Member in the team of project: "Preparation of nanostructured materials for dye sensitized solar cells", in collaboration with Chinese Shenzhen High Tech. Industrial Park and funded by the Egyptian Ministry for International Collaboration, 2003 – 2008.</p> <p><u>Theses Supervision</u></p> <p>“Preparation and characterization of quasi solid state electrolytes for</p>
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	<p>nanocrystalline dye sensitized solar cells”, Materials science department, Institute of graduate studies and research, Alexandria University, 2014. (Awarded 2014)</p> <p>“Preparation and Characterization of Quantum Dots Nanomaterials for Solar Cells Applications”, El Mansura University, 2012 (Awarded 2012)</p> <p>“Fabrication of n-CdS/p-SnS Solar Cells using Physical and Chemical Methods, Physics Department, Faculty of Science, Alexandria university. (Awarded 2016)</p> <p>“The Possibility of Using Solar Energy Techniques for Water Purification in Southwest Sinai Area”, Faculty of science, El Mansoura University. (Awarded 2016)</p> <p>“A Study of Graphene-Based Nanostructures as Advanced Materials for Dye-Sensitized Solar Cells”, Al Azhar University.(Awarded 2018)</p> <p>“Preparation and Characterization of Synthetic Ruthenium Dyes for Dye Sensitized Solar Cells”, Faculty of Science, Alexandria University. (Awarded 2018)</p> <p>“Optimizing the Fabrication Parameters for High Performance Iron Oxide Antireflecting Coating for Solar Energy Applications”, Faculty of Science, Alexandria University. (Ongoing)</p> <p>Preparation and characterization of nano-semiconductormaterials for photovoltaic cells”, Materials science department, Institute of graduate studies and research, Alexandria University.(Ongoing)</p> <p><u>SCIENTIFIC ACTIVITIES</u></p> <p>Organization number of international workshops; “Adsorption water desalination using Metal Organic Framework Materials”, cooperation between City of Scientific research and Technological applications (SRTA City) and University of Birmingham, Helnan Palestine Hotel, 21st February 2018.</p>
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	<p>Workshop for Project Activities and Water Desalination Technologies: Renewable Energy Driven Hybrid Desalination System for Remote Areas (RE-RO-MD))</p> <p>25 December, 2017, Cecel Hotel, Alexandria, Egypt.</p> <p>3rd joint workshop on Advanced Materials and Its Applications, Egypt – Japan University of Science and Technology – City for Scientific Research and Technological Applications, 28 November 2016, Alexandria , Egypt.</p> <p>Workshop on Global Concepts of Scientific Research, Faculty of Agriculture, Alexandria University, 28-29 September 2016.</p> <p>Workshop on Solar Energy and its Applications, The Arab Society of Materials Science, Institute of Graduate Studies and Research, Alexandria, Egypt, 2-4 April 2016.</p> <p>Workshop on Research Ethics: Basics and Principle, City of Scientific Research and Technological Applications, Alexandria, Egypt, 29 March 2016.</p> <p>Workshop on Energy Management System (EnMS) (Training session), Alexandria, Egypt, 12 October 2015.</p> <p>Workshop on Bio-Fuel Production, City of Scientific Research and Technological Applications, Alexandria, Egypt, 3 February 2013.</p> <p>Workshop on Egyptian – Italian Workshop on Renewable and Alternative Energy Systems, Academy of Scientific Research and Technology, Alexandria, Egypt, 11 November 2013.</p> <p>International workshop “Current Developments in Materials Science/ Physics with Relevance to Photovoltaic”, 3-5 December 2012, Alexandria University, Egypt.</p>
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	<p>Workshop for Project CSP Local Manufacturing in the MENA Region, 30 September 2011, Cairo Marriot.</p> <p>Workshop on "Applications of Solar Energy" Solar collectors and Photovoltaic Cells", 14-15 October 2008, Alexandria University.</p> <p>Workshop on "Advanced Artificial Intelligence: Challenges and Solutions", City of Scientific Research and Technology Applications (SRTA-City), Alexandria, Egypt.</p> <p>International Conference on Sustainable Energy: Technologies, Materials and Environmental Issues, 29 October -1 November 2007, Cairo, Egypt.</p> <p>US-Egypt Workshop on "Synthesis, Characterization and Industrial Applications of Nanoparticles and Nanostructure materials", 12-16 November 2005, Alexandria, Egypt.</p>
	<p>Administrative Activities List your Administrative Activities here... (Activity Title, Description& Date)</p> <p>Extra-curriculum Activities List your Extra-curriculum Activitieshere... e.g. (Leadership,Community services& Volunteer work)</p>
<p>GRANTS & AWARDS</p>	<p>List your Grants here...(start with the most recent) (Grant's Name – Date – Location)</p> <p>Awards List your Awards here...(start with the most recent) (Award's Name – Date – Location)</p>
<p>LIST OF</p>	<p>Sara Gad, MarwaFathy, YehiaBadr and Abd El-Hady B. Kashyout,Pulsed</p>

<p>PUBLICATIONS</p>	<p>Laser Deposition of In_{0.1}Ga_{0.9}N Nanoshapes by Nd:YAG Technique, Coatings 2020, 10, 465.</p> <p>Abd El-Hady B Kashyout, MarwaFathy, Sara Gad, YehiaBadr, Ahmed A. Bishara, Synthesis of Nanostructure In_xGa_{1-x}N Bulk Alloys and Thin Films for LED Devices, Photonics 2019, 6, 44.</p> <p>Effat Samir, Mohamed Salah, Ali Hajjiah, Nader Shehata , MarwaFathy, AyaHamed, Electrospun PVA Polymer Embedded with Ceria Nanoparticles as Silicon Solar Cells Rear Surface Coaters for Efficiency Improvement, Polymers 2018, 10, 609, doi:10.3390/polym10060609.</p> <p>Abd El-Hady B. Kashyout, MarwaFathy, HeshamGalal, FebiSaleb, A study entitled; "دراسة تشخيصية لمسح الامكانيات فى مجال علوم و تقنيات النانو فى الدول العربية" , Arab Organization for Education, Culture and Science (ALECSO), 2017.</p> <p>MarwaFathy, AyaGomaa and Abd El-Hady B. Kashyout, "Metal-Free Counter Electrode for High-Performance Dye-Sensitized Solar Cells", 6th International Chemistry Conference, 8-10 November 2016, Riyadh, Saudi Arabia.</p> <p>MarwaFathy "Fabrication of High Efficient Thin Film Solar Cells using Electrodeposition Technique ", BIT's 6th Annual World Congress of Nano Science & Technology – 26-28 October 2016-Singapore.</p> <p>MarwaFathy, Hesham Hamad and Abd El HadyKashyout, Influence of calcination temperatures on the formation of anatase TiO₂ nano rods with a polyol-mediated solvothermal method, RSC Adv., 6, 2016, pp.7310- 7316. <i>(ISSN 2046-2069) Scopus and ISI (Impact factor: 3.289), SJR value = 1.03. In the top twenty % of the subject category: Chemical Engineering (no. 94 / 527), 2- Chemistry (no. 149 / 813).</i></p> <p>MarwaFathy, AyaGomma, FatmaTaher, Magda El-Fass, Abd El-Hady B.</p>
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	<p>Kashyout "Optimizing the Preparation Parameters of GO and rGO for Large Scale Production", Materials Science, 51(<u>12</u>), 2016, pp 5664-5675. <i>(ISSN: 0022-2461) Scopus and ISI (Impact factor: 2.371) SJR value = 0.93. In the top twenty % of the subjectcategory: 1- Engineering journal (no. 406 / 2429), 2- Material Chemistry (no. 194 / 1038).</i></p> <p>MarwaFathy, Ahmed I. Omran, Waheed A. Badway, "Influence of heat treatment on antireflective coating nanocrystalline α-Fe₂O₃ layer for solar cell applications", International journal of Science, 5 - 2016 (03), pp 127-132, DOI: 10.18483/ijSci.985.</p> <p>MarwaFathy, ShaimaaElyamny, Siham Mahmoud, Abd El-Hady B. Kashyout, "Effect of Thermal and Chemical Treatment on Electrodeposited CdTe Thin Films for Solar Cell Applications", Int. J. Electrochem. Sci., 10 (2015) pp.6030 – 6043. <i>(ISSN 1452-3981) Scopus &ISI (Impact factor: 1.692) SJR value =0.51, <u>Top fifty % of the subject category: Chemistry (no. 348 / 813).</u></i></p> <p>MarwaFathy, Abd El-Hady B. Kashyout, ShaimaaElyamny, Gamal D. Roston, Ahmed A. Bishara, "Effect of CdCl₂ Concentration and Heat Treatment on Electrodeposited Nano-Crystalline CdS Thin Films from Non-Aqueous Solution", Int. J. Electrochem. Sci., 9(2014) pp.6155 – 6165. <i>(ISSN 1452-3981) Scopus &ISI (Impact factor: 1.692) SJR value =0.51, <u>Top fifty % of the subject category: Chemistry (no. 348 / 813).</u></i></p> <p>MarwaFathy, Jehan El Nady, MamounMuhammed, Shaker Ebrahim, Moataz B. Soliman, Abd El-Hady B. Kashyout, "Quasi-Solid-State Dye Sensitized Solar Cells Based on Nanofiber PMA-PVDF and PMA-PVDF/PEG Membranes", Int. J. Electrochem. Sci., 11 (2016). <i>(ISSN 1452-3981) Scopus &ISI (Impact factor: 1.692) SJR value =0.51, <u>Top fifty % of the subject category: Chemistry (no. 348 / 813).</u></i></p> <p>M. Fathy, A.B. Kashyout, J. El Nady, Sh. Ebrahim, M. Soliman, "ElectrospunPolymethylacrylateNanofibers Membranes for Quasi-Solid-</p>
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	<p>State Dye Sensitized Solar Cells”, Alexandria Engineering Journal, (2016) 55, 1737–1743.</p> <p>(ISSN: 1110-0168) Scopus, Source Normalized Impact per Paper (SNIP): 0.817, SJR value =0.23, <u>Top fifty% of the subject category: Engineering (Miscellaneous)(no. 162 / 334).</u></p> <p>S. A. Mohallel, SaieEldenMetwally, Esam A. Gomaa, MarwaFathy, Amr Abdel latifSayedAlahl, “Assessment of scaling formation during solar desalination using PHREEQC modeling in El Gebail and El Qaa plain areas: southwest Sinai”, Renewable: Wind, Water, and Solar (2016) 3:4, DOI 10.1186/s40807-016-0024-6. (ISSN: 2198-994X)</p> <p>Abd El Hady B. Kashyout, EssamKhamis, Hisham G. El-Shimy, MarwaFathy, Feby S. Yossef, “ The Needs of Knowledge Based Economy for Advancing Egypt Development Plans”, Applied Sciences and Engineering, 2015, Vol.2 DOI: 10.18488/journal.1001/2015.2/1001.2.</p> <p>Hesham M.A. Soliman, RobinaShahid, MarwaFathy, MamounMuhammed, “<u>Novel low temperature route for large scale synthesis of ZnO quantum dots</u>” International journal of Science, Volume 1 - December 2012 (12), pp.153-161.</p> <p>ISSN (2305-3925) (Impact factor: 2.17).</p> <p>A.B. Kashyout,HeshamM. A. Soliman,MarwaFathy, E. A. Gomaa, Ali A. Zidan “CdSe quantum dots for solar cell devices”, International journal of PhotoEnergy, Volume 2012 (2012), Article ID 952610, 7 pages.</p> <p>Scopus (Impact factor: 1.563) SJR value =0.335, <u>Top fifty % of the subject category: Energy (no. 163 / 368).</u></p> <p>Abd El-Hady B. Kashyout, Hesham M.A. Soliman , HanaaAbouGabal , PoussyAly Ibrahim , MarwaFathy , “Preparation and characterization of DC sputtered molybdenum thin films”,Alexandria Engineering Journal (2011) 50, pp.57–63.</p> <p>(ISSN: 1110-0168) Scopus, Source Normalized Impact per Paper</p>
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	<p>(SNIP): 0.817, SJR value =0.23, <u>Top fifty % of the subject category: Engineering (Miscellaneous)(no. 162 / 334).</u></p> <p>Abd El-Hady B. Kashyout, MarwaFathy, Moataz B. Soliman, "Studying the Properties of RF-Sputtered Nanocrystalline Tin-Doped Indium Oxide", International Journal of Photoenergy, Volume 2011, Article ID 139374, 6 pages, doi:10.1155/2011/139374. Scopus (Impact factor: 1.563) SJR value =0.335, <u>Top fifty % of the subject category: Energy (no. 163 / 368).</u></p> <p>A.B. Kashyout, M. M. Soliman, M. Fathy, "Effect of preparation parameters on the properties of TiO₂ nanoparticles for dye sensitized solar cells",Renewable Energy, 35 (2010) pp. 2914-2920. Scopus (Impact factor: 4.068) SJR value =1.962, <u>Top twenty% of thesubjectcategory: Energy (no. 23 / 368).</u></p> <p>M. Fathy,A.B. Kashyout, M. Soliman, M. El Gamal,"Preparation and characterization of nano particles ZnO films for dye-sensitized solar cells", Materials Chemistry and Physics, 90 (2005) pp. 230-233. Scopus (Impact factor: 2.357) SJR value =0.818, <u>Top fifty% of the subject category: Materials Science (no. 229 / 1038).</u></p>
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