YOUR NAME: PROF. ABD EL-HADY B. KASHYOUT

CURRENT POSITION: HEAD OF ELECTRONIC MATERIALS RESEARCH DEPARTMENT

PERSONAL INFORMATION	Full Name:	Abd El-Hady Bashir Kashyout
	Affiliations:	Electronic Materials Research Department, Advanced Technology and New Materials Research Institute, City of Scientific Research and Technological Applications (SRTA-City)
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EDUCATION	1. **Ph.D.** in Materials Science, Institute of Graduate Studies and Research, Alexandria University **(2001).** "The Effect of Preparation Parameters on the Properties of CdTe Films". 2. **M.Sc.** in Electrical Engineering, Faculty of Engineering, Cairo University, 1998. "Preparation of Semiconductor Materials by a Low Cost Technique: Electrodeposition of $Fe_{1-x}Zn_xS_2$ on Fluorine Doped SnO_2 for Solar Energy Conversion". 3. **B.Sc.** In electrical power Eng., Faculty of Engineering- Alexandria University. July 1989. (Degree: Distinction).	
ACTIVITIES	**Scientific Activities** 1. Fabrication of nanostructured materials for dye sensitized solar cells (TiO_2, ZnO, CdS:Sb). 2. Improving Si solar cell efficiency through back contact enhancement 3. Supercapacitor nanomaterials for super energy storage 4. Quantum dot nanomaterials and dye sensitized solar cells 5. Hybrid renewable energy systems for water desalination 6. Fabrication of nanostructured materials for Antibacterial applications (TiO_2). 7. Thin film compounds (CdTe, CdS, ZnTe, ZnO, Sb_2Te_3, Zn_3P_2) for solar cell applications. 8. Preparation of nanosized Pt-Ru, Pt, Pd-Ag, Pd-Graphene electrodes for fuel cell applications (Direct Methanol and Direct Urea Fuel Cells).	

	9. Preparation of ZnO:Sb, SnO_2, WO_3 nano-materials for sensing applications. **10.** Preparation of MoO_3 and WO_3 for electroluminescent Devices. **11.** Fabrication of InGaN alloys for LED Applications. **12.** Knowledge Based Economy and STP's Management
	Administrative Activities 1. Leading the Advanced Technology and New Materials Institute as the dean of the institute from March 4, 2008 to May 2, 2011. 2. CEO of the investment zone at SRTA-City since May 2011 to October 2017, which is considered as the first science and technology park in Egypt. 3. Vice Chairman of SRTA-City for Engineering Affairs since March 2013 to March 2015, which has many responsibilities to all engineering affairs such as master plan, construction of new buildings, maintenance of infrastructure and so on. 4. Head of Electronic Materials Research Department (2011 till now). 5. CEO of the Advanced and Future Studies Excellence Center at SRTA-City, 2013 till now.
	Extra-curriculum Activities 6. Participation in the plan for the implementation of institute of new materials and advanced technologies especially department of electronic materials researches. 7. Supervision of the president office of Mubarak City for Scientific Research & Technology Applications since November 2001 to January 2007. 8. AIDMO Arab League Expert in the field of Energy Nanomaterials 9. ALECSO Arab League Expert in Advanced Studies for Nanotechnology 10. ESCWA-UN Expert in Artificial Intelligence 11. Design and consult of small and medium biological waste water treatment units. 12. Energy management course for undergraduate students, Faculty of Engineering, Arab Academy for Science and Technology and Maritime transportation, Alexandria, Egypt, (2001 - 2008). 13. Solid state physics, semiconductor technology, for Graduate students of Institute of Graduate studies and Research, Alexandria University, Egypt 14. NEMS/MEMS, Thin film Technology, Integrated circuit design, Nanoelectrochemistry, Semiconductor Device Physics and Technology, Renewable and Alternate Energy Nanotechnologies, Optoelectronic Devices, Institute of Nanotechnology and Nanoscience, Kafrelsheikh University (2017-2020).
GRANTS &	1. From January 17, 2017 to January 30, 2017, attending JICA training in higher education and science and technology policies. 2. From June 12, 2012 to July 12, 2012, Visiting Professor to Royal Institute of Technology (KTH), Stockholm, Sweden. 3. From August 17, 2009 to October 2, 2009, Visiting Professor to Royal Institute of Technology (KTH), Stockholm, Sweden. 4. From November 2, 2008 to November 16, 2008, Participating in the Science and Technology Parks (STP) Management Training, Daejeon, Korea. 5. From March 7, 2007 to September 6, 2007, Visiting professor to Royal Institute of

	Technology (KTH), Stockholm, Sweden. 6. From July 1997 to Oct. 1997 at National Research Council - Institute of Advanced Technologies for Energy (CNR, TAE) – Italy (Messina) in the field of Materials Characterization for solar cell and Fuel Cell applications. 7. From Sep. 1996 to Dec. 1996. JICA Training in Osaka Municipal Technical Research Institute (OMTRI)-Japan in the field of Inorganic materials and technology for electronic industry. 8. From March 1996 to May 1996 at National Research Council - Institute of Advanced Technologies for Energy Transformation (CNR, TAE) - Italy (Messina) in the field of Electrochemical Processes for Solar Cell Applications. 9. From Feb. 1993 to Aug. 1994 at National Research Council- Institute of Advanced Technologies for Energy Transformation (CNR, TAE)- Italy (Messina) in the field of Electrochemical Processes for Solar Cell Applications.
AWARDS	1. From June 2003 to August 2003, DFG award at Institute of Solar Energy, Hannover University, Germany. 2. SRTA-City Prize for Scientific Excellence, 2010, 2014, 2015.
LIST OF PUBLICATIONS	1. Bacterial nanocellulose from agro-industrial wastes: low-cost and enhanced production by Komagataeibacter saccharivorans MD1, Deyaa Abol-Fotouh, Mohamed A. Hassan, Hassan Shokry, Anna Roig, Mohamed S. Azab and **Abd El-Hady B. Kashyout**, Scientific Reports, Scientific Reports volume 10, Article number: 3491 (2020). 2. New carbazole-based organic dyes with different acceptors for dye-sensitized solar cells: Synthesis, characterization, dssc fabrications and density functional theory studies, Moustafa S. Abusaif; M. Fathy; M.A. Abu-Saied; Ahmed A. Elhenawy; **A.B. Kashyout**; Mohamed R. Selim; Yousry A. Ammar, *Journal of Molecular Structure* (IF 2.463) **Pub Date : 2020-09-18** , *DOI:* 10.1016/j.molstruc.2020.129297. 3. Back Contact Coating to Increase the Efficiency of Polycrystalline Silicon Solar Cells, **Abd El-Hady B. Kashyout**, S. El-Hashash, R. AbdelRassoul, EU PVSEC 2020, 7 - 11 September 2020. 4. Development of Nano-SnO_2 and SnO_2: V_2O_5 Thin Films for Selective Gas Sensor Devices, Y Ibrahim, **AB Kashyout**, I Morsi, HS Hassan, Arabian Journal for Science and Engineering, 1-18 (2020). 5. Development of an off-grid solar energy powered reverse osmosis desalination system for continuous production of freshwater with integrated photovoltaic thermal (PVT) cooling, Alireza Abbassi Monjezia, Yingxue Chena, R.Vepa, **Abd El-Hady B. Kashyout** Gasser Hassan, Hassan El-Banna Fath, Abd El-Wahab Kassemd, Mohammad Hasan Shaheed, Desalination, Volume 495, 1 December 114679, (2020). 6. Superconducting and Electrical Resistivity of HTS Bi-2223 Doped by (Cr2O3: SnO)x Nanoparticles, H Khalil, **A. Kashyout**, O Hemeda, T Meaz, Materials Science Forum 1008, 104-113(2020). 7. Pulsed Laser Deposition of $In_{0.1}Ga_{0.9}N$ Nanoshapes by Nd:YAG Technique, Sara Gad, Marwa Fathy, Yehia Badr and **Abd El-Hady B. Kashyout**, Coatings, 2020, 10, 465;

doi:10.3390/coatings10050465.

8. SnS nanocrystalline thin films for n-CdS/p-SnS solar cell devices, Marwa Fathy, Shaimaa Elyamny, Ahmed A. Bishara, Gamal D. Roston, **Abd El-Hady B. Kashyout**, 2020, Journal of Materials Science: Materials in Electronics, https://doi.org/10.1007/s10854-020-04362-y
6. Nano-architecture of highly sensitive SnO_2–based gas sensors for acetone and ammonia using molecular imprinting technique, R Abdelghani, H. Shokry Hassan, I. Morsi, **A. B. Kashyout**, Sensors and Actuators B 297 (2019) 126668.
7. Development of High-Performance Supercapacitor based on a Novel Controllable Green Synthesis for 3D Nitrogen Doped Graphene, NA Elessawy, J El Nady, W Wazeer, **AB Kashyout**, Scientific reports 9 (1), 1129, 2019.
8. Development of Nano- Doped with NiO for Wireless Gas Sensors, MA Abozeid, HS Hassan, I Morsi, **AB Kashyout**, Arabian Journal for Science and Engineering 44 (1), 647-654, (2019).
9. Production of high throughput nano-porous silicon (NPS) powder with different architectures, **AEH Kashyout**, M Nabil, Materials Chemistry and Physics 216, 454-459, (2018)
10. Novel sulfonated poly (glycidyl methacrylate) grafted Nafion membranes for fuel cell applications, MSM Eldin, AA Nassr, **AB Kashyout**, EA Hassan, Polymer Bulletin 74 (12), 5195-5220, (2017).
11. Quasi-solid-state electrolyte for dye sensitized solar cells based on nanofiber PMA-PVDF and PMA-PVDF/PEG membranes, M Fathy, J El Nady, M Muhammed, S Ebrahim, MB Soliman, **Abd El-Hady B Kashyout**, Int. J. Electrochem. Sci 11, 6064-6077, (2016).
12. Optimizing the preparation parameters of GO and rGO for large-scale production, **Abd El-Hady B Kashyout,** Marwa Fathy, Aya Gomaa, Fatma A. Taher, Magda M. El-Fass, Journal of Materials Science 51 (Issue 12), pp 5664-5675, (2016).
13. Electrospun polymethylacrylate nanofibers membranes for quasi-solid-state dye sensitized solar cells, M Fathy, **AB Kashyout**, J El Nady, S Ebrahim, MB Soliman, Alexandria Engineering Journal 55 (2), 1737-1743 (2016).
14. Nanoparticles Ni electroplating and black paint for solar collector applications, J El Nady, **AB Kashyout**, S Ebrahim, MB Soliman, Alexandria Engineering Journal 55 (2), 723-729 (2016).
15. Photocatalytic parameters and kinetic study for degradation of dichlorophenol-indophenol (DCPIP) dye using highly active mesoporous TiO2 nanoparticles, HA Hamad, WA Sadik, MMA El-Latif, **AB Kashyout**, MY Feteha, Journal of Environmental Sciences 43, 26-39 (2016).
16. Influence of calcination temperatures on the formation of anatase TiO_2 nano rods with a polyol-mediated solvothermal method, M Fathy, H Hamad, **AEH Kashyout**, RSC Advances 6 (9), 7310-7316 (2016).
17. Influence of Reaction Time, Reducing Agent and Zinc Precursors on the Morphological Structures of Zinc Oxide, HS Hassan, **AB Kashyout**, HMA Soliman, MA Uosif, N Afify, ANGLISTICUM. Journal of the Association-Institute for English Language and American Studies Vol. 3 (2016).
18. Optimizing the preparation parameters of mesoporous nanocrystalline titania and its photocatalytic activity in water: Physical properties and growth mechanisms H Hamad, MA El-latif, **AEH Kashyout**, W Sadik, M Feteha Process Safety and Environmental Protection 98, 390-398, (2015).

19. Influence of calcination temperature on the physical properties of nano-titania prepared by sol-gel/hydrothermal method HA Hamad, MMA El-latif, **AB Kashyout**, WA Sadik, MY Feteha Russian Journal of Physical Chemistry A 89 (10), 1896-1906, (2015).
20. Development of polypyrrole coated copper nanowires for gas sensor application HS Hassan, **AB Kashyout**, I Morsi, AAA Nasser, H Abuklill, Sensing and bio-sensing research 5, 50-54 (2015).
21. Impact of Congo red dye in nano-porous silicon as pH-sensor. **AH Kashyout**, H Soliman, M Nabil, A Bishara, Sensors and Actuators B: Chemical 216, 279-285 (2015).
22. Effect of thermal and chemical treatment on electrodeposited CdTe thin films for solar cell applications, M Fathy, S Elyamny, S Mahmoud, **AEHB Kashyout**, Int. J. Electrochem. Sci 10, 6030-6043 (2015).
23. Fabrication of ZnO Gas Sensor for Detection of LPG Gas., I Morsi, AAA Nasser, I Ali, HS Hassan, **AB Kashyout**, ETRI Journal 37 (2), (2015).
24. Fabrication and characterization of nano-gas sensor arrays, HS Hassan, **AB Kashyout**, I Morsi, AAA Nasser, A Raafat, AIP Conference Proceedings 1653 (1), 020042 (2015).
25. Green building as concept of sustainability Sustainable strategy to design Office building MR Radwan, **AEHB Kashyout**, HG ELshimy, SF Ashour, 2nd ISCASE-2015 Dubai, 41 (2015).
20. "(One-step) electrochemical deposition and characterization of CuInSe2 thin films", **A.E.-H.B. Kashyout**, , E.-Z. Ahmed, , T. Meaz, , M. Nabila, M. Amerb, Alexandria Engineering Journal 53 (3), 731-736, 2014
21. "Synthesis, Characterization and Fabrication of Gas Sensor Devices Using ZnO and ZnO: In Nanomaterials", HS Hassan, **AB Kashyout**, I Morsi, AAA Nasser, I Ali, Beni-Suef University Journal of Basic and Applied Sciences, 2014
22. Study on synthesis of superparamagnetic spinel cobalt ferrite nanoparticles as layered double hydroxides by co-precipitation method, H. A. Hamad, M. M. Abd El-latif, **A. B. Kashyout**, W. A. Sadik, M. Y. Feteha Russian Journal of General Chemistry, October 2014, Volume 84, Issue 10, pp 2031-2036 2014 – Springer
23. Fabrication and characterization of gas sensor micro-arrays H Shokry Hassan, **AB Kashyout**, I Morsi, AAA Nasser, A Raafat, Sensing and Bio-Sensing Research, 2014
24. Effect of $CdCl_2$ Concentration and Heat Treatment on Electrodeposited Nano-Crystalline CdS Thin Films from Non-Aqueous SolutionM Fathy, **AEHB Kashyout**, S Elyamny, GD Roston, AA BisharaInt. J. Electrochem. Sci 9, 6155-6165, (2014)
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26. Effect of reaction time and Sb doping ratios on the architecturing of ZnO nanomaterials for gas sensor applications, H Shokry Hassan, **AB Kashyout**, HMA Soliman, MA Uosif, N Afify, Applied Surface Science 277, 73-82, 20136 (2013).
27. Best Practice of Science / Technology Parks WMS Yasser R. Abdel-Fattah, **Abdel-Hady B. Kashyout**, World Technopolis Review 2 (6), 96-108, 2013.
28. Fabrication of Congo Red/Oxidized Porous Silicon (CR/OPS) pH-Sensors, AAB **Abdel-Hady Kashyout**, Hesham M. A. Soliman, Marwa, Materials Sciences and Applications, 79-87, 2013.
29. **A. B. Kashyout**, Hesham M. A. Soliman, Marwa Fathy, E. A. Gomaa, and Ali A. Zidan, "CdSe Quantum Dots for Solar Cell Devices", International Journal of Photoenergy, Volume 2012, Article ID 952610.
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45. **A. B. Kashyout** and M. Soliman, " Fabrication of Cd:Sb Nanocrystalline Thin Films for Dye Sensitized Solar Cells", Submitted, Materials Chemistry and Physics.
46. H. Shokry Hassan, **A. B. Kashyout**, H. A. M. Soliman, A. M. Abousehly, " Gas sensing properties of ZnO and ZnO-doped with Sb nanocrystalline thin films prepared

by spin coating technique", to be published in Journal of Nanomaterials.

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	Temperature on Crystal and Optical Properties of ZnFeS Thin Film Semiconductors", Materials Chemistry and Physics, Vol. 41, pp. 55 (1995). 63. **A. B. Kashyout**, A. S. Arico, G. Monforte, F. Crea, V. Antonucci, and N. Goirdano, "Electrochemical Deposition of ZnFeS thin film Semiconductors on Tin Oxide Substrates", Solar Energy Materials and Solar Cells, Vol. 37, pp. 43-53 (1995).