List of Publications

I. **Patents and Disclosures** (Total: 6)

- Nageh K. Allam and Basamat S. Shaheen, *Niobium Oxynitride Micro-Cones*, US 20160332878 A1, 2016.
- R. Nashed, P. Szymanski, M. A. El-Sayed, and Nageh K. Allam, *Efficient Charge Separation in Self-Assembled Nanostructured Photoanodes with Staggered Bandgap for Solar Energy Conversion*, Provisional US Patent # 61/985504, Filing Date: 4/29/2014.
- Yomna E. Saleh and Nageh K. Allam, *Ti-based Functional Nanoarchitectures as Drug Eluting Stents*, Provisional US Patent # 62/262685, Filing Date: 12/3/2015.
- Menna Samir and Nageh K. Allam, *Sub 100 nm Oxidized Transition Metal Tubular Architectures*, Provisional US Patent # 62/262743, Filing Date: 12/3/2015.
- Mahmoud A. Aly and Nageh K. Allam, *Extraction of Iron (III) Oxide from Different Iron-Containing Ores*, Provisional US Patent # 62/509432, Filing Date: 5/22/2017.
- Hady Soliman, Mohamed Shokeir, Sandy El Moghazi and Nageh K. Allam, Magnetolysis, Provisional US Patent # 62/457533, Filing Date: 2/10/2017

II. **Books/Book Chapters** (Total: 3)

- Nageh K. Allam, *Anodically Fabricated Metal Oxide Nanotube Arrays*, VDM Verlag Dr. Müller, Germany, (2011), ISBN-10: 3639325974, ISBN-13: 978-3639325973.
- A.M. Mohamed, B. S. Shaheen, A. M. Mohamed, A. W. Amer, N. K. Allam, *Recent advances in the use of Silicon-based photocathodes for solar fuel production, in Advances in Silicon Solar Cells*, Editor: S. J. Ihkmayies. Springer (2018), eBook ISBN: 978-3-319-69703-1, Hardcover ISBN: 978-3-319-69702-4, DOI: 10.1007/978-3-319-69703-1.
- Sarah A. Tolba, Kareem M. Gameel, Basant A. Ali, Hossam A. Almossalami, Nageh K. Allam, *The DFT+U: Approaches, Accuracy, and Applications, in Density Functional Calculations: Recent Progresses of Theory and Application*, InTech (2018)

III. Referred Journal Publications (Total: 117 Cited: 3360) Scopus ID: 15847662300

- **Energy Conversion and Storage**

1. A. M. Hafez, A. M. Abdellah, E. Panaitescu, L. Menon, **Nageh K. Allam*** *"Novel Highly Porous $Ba_3Ti_4Nb_4O_{21}$ Perovskite Nanofibers as Photoanodes for Dye-Sensitized Solar Cells (DSSCs)"*, 2018, Accepted.
2. A. M. Hafez, A. M. Abdellah, S. Panikkanvalappil, M.A. El-Sayed, **Nageh K. Allam*** *"Single Crystal Electrospun Plasmonic Perovskite Nanofibers"*, J. Phys. Chem. C 2018, DOI: 10.1021/acs.jpcc.8b00788.
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- **Biomaterials**

99. Y. E. Saleh, M. A. Gepreel and **Nageh K. Allam***, *"Functional Nanoarchitectures for Enhanced Drug Eluting Stents"* Scientific Reports 7 (2017) 40291.
100. D.M. Ibrahim, A. Kakarougkas, **Nageh K. Allam***, *"Recent Advances on Electrospun Scaffolds as Matrices for Tissue-Engineered Heart Valves"*, Materials Today Chemistry 5 (2017) 11-23
101. S. Ibrahim, H. M. Sayed, A.M. EL-Rafei, A. El Amir, M. Ismail, **Nageh K. Allam***, *"Improved Genistein Loading and Release on Electrospun Chitosan Nanofiber Blends"* J. Mol. Liquids 223 (2016) 1056–1061.
102. M.A. Ganzoury and **Nageh K. Allam***, "*Impact of Nanotechnology on Biogas Production: A mini-review*", Renewable and Sustainable Energy Reviews 50 (2015) 1392–1404. One of the most-accessed articles during June to September 2015: 500 downloads.
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- **Passivation/Protection of Metals and Semiconductors**

105. N.K. Awad, E.A. Ashour and **Nageh K. Allam***, "*Unravelling the Composition of the Surface Layers formed on Cu, Cu-Ni, Cu-Zn and Cu-Ni-Zn in Clean and Polluted Environments"*, Applied Surface Science 346 (2015) 158–164.
106. N.K. Awad, E.A. Ashour, A.S. Fouda and **Nageh K. Allam***, "*Effect of Alloying Elements on the Electrochemical Behavior of Cu-Ni-Zn Ternary System in Sulfide-polluted Saltwater*", Applied Surface Science 307 (2014) 621–630.
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Derivatives during Muntz Corrosion in Acidic and Neutral Solutions", *J. Appl. Surf. Sci.* 253 (2007) 4570-4577.

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IV. Conference Talks/Posters/Proceedings (Total: 61)

1. OAM Abdelraouf, MI Abdelrahaman, **Nageh K. Allam**, Plasmonic scattering nanostructures for efficient light trapping in flat CZTS solar cells, *SPIE Optics+ Optoelectronics*, 1022712-1022712-9, 2017.
2. OAM Abdelraouf, **Nageh K. Allam**, Enhancing light absorption in CZTS solar cell using plasmonics back scattering nanostructures, *2017 MRS Spring Meeting & Exhibit*, Arizona, **USA**.
3. OAM Abdelraouf, **Nageh K. Allam**, Broadband light absorption in perovskite solar cell using metamaterial cross grating structures, *2017 MRS Spring Meeting & Exhibit*, Arizona, **USA**.
4. OAM Abdelraouf, **Nageh K. Allam**, Metamaterial absorber for efficient perovskite solar cell, *2017 MRS Spring Meeting & Exhibit*, Arizona, **USA**.
5. OAM Abdelraouf, **Nageh K. Allam**, Refractory plasmonic absorber for efficient CZTS solar cells, *2017 MRS Spring Meeting & Exhibit*, Arizona, **USA**.
6. OAM Abdelraouf, **Nageh K. Allam**, Metamaterial for enhanced absorption in CZTS solar cell, *2017 MRS Spring Meeting & Exhibit*, Arizona, **USA**.
7. Alaa Mohyeldin and **Nageh K. Allam**, Enhanced Nanoarchitectured Coronary Stents: Towards Smart Drug Release, *Nano World Conference*, April 03-05, 2017 at Boston, **USA**
8. Radwa Adel Shedeed, Ahmed Shehata, **Nageh K. Allam**, Graphene Quantum Dots/Metal Oxide Hybrid Photoelectrodes for Efficient Solar Energy Conversion, *2016 MRS Spring Meeting*, Phoenix, Arizona, **USA**
9. Dina Eissa and **Nageh K. Allam**, Brass Made to Rust: Efficient Nanostructured Material for Solar Energy Conversion, *Nano World Conference*, April 03-05, 2017, Boston, **USA**
10. Walaa A. Abbas, Marwan Yaser, Ayat Elshazly, and **Nageh K. Allam**, ZnO Nanostructures and their Antibacterial Activity, *Nano World Conference*, April 03-05, 2017, Boston, **USA**
11. AM Gouda, M Elsayed, **Nageh K. Allam**, MA Swillam, Black silicon based on simple fabrication of mesoporous silicon nanowires for solar energy harvesting, *Photovoltaic Specialists Conference (PVSC)*, 2016 IEEE 43rd, 2893-2895, **USA**.
12. D El-Gendy and **Nageh K. Allam**, Synthesis of Functional Graphene by Simultaneous Reduction of Graphene Oxide with Adenine for High Performance Supercapacitors , *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
13. H Handal and **Nageh K. Allam**, Investigation of Novel Photoelectrode Materials Based on WO_3—A Next Generation for Energy Harvesting, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
14. NS Ismail, S Zada, A Kulkarni and Nageh K. Allam, Novel Engineered Nano-liposomes for Altering Immune Response: A Promising Targeting Platform in Cancer Immunotherapy Applications, 5th *Sustainable Nanotechnology Organization Conference*, Orlando, FL, Nov. 10-12, 2016, **USA**.
15. AM Gouda, **Nageh K. Allam**, and MA Swillam, Facile omnidirectional black silicon based on porous and nonporous silicon nanowires for energy applications, *Photonics North (PN)*, 2016, **USA**.
16. **Nageh K. Allam**, Ultrathin Layers of ZrN-An Effective Approach toward Visible-Light Water Splitting, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
17. A Hafez, A Mahmoud, E Panaitescu, A Osherov, L Menon, **Nageh K. Allam**, V Bulović, Highly porous $BaTiNbO_3$ perovskite nanofibers as photoanodes for DSSCs applications, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
18. A Hafez, M Sponseller, A Osherov, **Nageh K. Allam**, V Bulović, Ultra short transparent Nb_2O_5 nanotube arrays as

electron transport layer for halide perovskite solar cells, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**

19. S Al-Qaradawi, AF Zedan, HS Rady, K Soliman, AS Aljaber, **Nageh K. Allam**, Low-Temperature CO Oxidation Over CuO-TiO_2 Nanocatalysts, *Qatar Foundation Annual Research Conference Proceedings* 2016 (1), EEPP1761
20. A El-Sayed, A Hegazy and Nageh K. Allam, Exceptionally Crystalline TiO_2 Mesocrystals with Enhanced Light Harvesting Characteristics for solar energy conversion, *SAIP 2016 Annual Conference of the Institute of Physics*, 4-8 July 2016, Cape Town, South Africa.
21. M Hassan, AM Khalifa, **Nageh K. Allam**, Photo-Enhanced CO_2 Reduction Using Cu Nanofibers-Decorated Titania Nanotubes, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
22. M Deyab, **Nageh K. Allam**, Influence of Electrolyte Composition on the Formation of Mixed Oxide Nanotube Arrays for Solar Fuel Production, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
23. B Shaheen, **Nageh K. Allam**, 10-Fold Enhancement in Light-Driven Water Splitting Using Niobium Oxynitride Microcone Array Films, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
24. M Deyab, **Nageh K. Allam**, Ternary Ti-Mo-Ni Mixed Oxide Nanotube Arrays as Photoanode Materials for Efficient Solar Hydrogen Production, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
25. M Ganzoury, **Nageh K. Allam**, Solar Thermochemical Water Splitting Using Ceria-Zirconia Mixtures-Thermodynamic and Efficiency Analysis, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
26. M El-Shall, **Nageh K. Allam**, Broadband Absorption Enhancement in Thin-Film Solar Cells Using Asymmetric Double-Sided Pyramid Gratings, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
27. NS Ismail, S Zada, A Kulkarni and **Nageh K. Allam**, Fluorescently Surface Charged Nano-Liposomes Reveal Unexpected Internalization Pattern among Various Immune Cells-A Step Towards Better Targeted Cancer Nano-Immunotherapy, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
28. NS Ismail, S Zada, A Kulkarni and **Nageh K. Allam**, Engineering Pegylated Nano-Liposomes as a Novel Delivery Platform for Anthraquinone Based STAT3 Inhibitor-Towards Efficient Activation of Dendritic Cells in Tumor , *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
29. AM Khalifa, **Nageh K. Allam**, Titanium Dioxide Nanotubes/Ternary Metallic Catalysts Heterojunctions-A Step towards Selective Solar-Driven CO_2 , *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
30. A El-Sayed, Nageh K. Allam, Nanostructured Mixed Oxynitride Nanotube Composite for Solar Energy Conversion, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, USA
31. A Selmy, M Soliman and **Nageh K. Allam**, Refractory Plasmonic Solar Cells, Replacing Gold with TiN, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
32. N Hassan, S Zada and **Nageh K. Allam**, Electrospun Gelatin Nanofibers with Self-Assembled Calcium Carbonate Crystals—An Outstanding Approach for Guided Tissue Regeneration, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
33. OAM Abdelraouf and **Nageh K. Allam**. Plasmonic-assisted Perovskite Solar Cells, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
34. N Abd Eltawab and **Nageh K. Allam**. Graphene Based Nano-Composite Materials for Photo Electrochemical Water Splitting, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
35. A Elshazly and **Nageh K. Allam**. Photocatalytic Decomposition of Methylene Blue Dye Using ZnO_2/SnO_2 nanocomposite prepared by co-precipitaion method, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**
36. WA Adly and **Nageh K. Allam**. Bio-inspired Scaffolds for Wound Healing Applications, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**

37. A Mohamed, A Amer, S AlQaradawi and Nageh K. Allam. On the Nature of Defect States in Tungstate Nanoflake Arrays as Promising Photoanodes for Photoelectrochemical Water Splitting, *2016 MRS Fall Meeting*, November 27 - December 2, 2016, Boston, Massachusetts, **USA**

38. R Shedeed, A Shehata and **Nageh K. Allam**. Graphene Quantum Dots/Metal Oxide Hybrid Photoelectrodes for Efficient Solar Energy Conversion, *2016 MRS Spring Meeting*, March 28 - April 1, 2016, Phoenix, Arizona, **USA**

39. YE Saleh and **Nageh K. Allam**. Functional Nanoarchitectures For Enhanced Drug Eluting Stents, *2016 MRS Spring Meeting*, March 28 - April 1, 2016, Phoenix, Arizona, **USA**

40. **Nageh K. Allam**, Tungsten Passivation of the Defects in Ta_2O_5 Nanotubes for Efficient Solar Energy Conversion, *MRS Fall Meeting*, November 30 - December 5, 2015, Boston, Massachusetts, **USA**.

41. **Nageh K. Allam**, Structural and Electronic Characteristics of In-Situ Doped Titania Nanotubes, November 30 - December 5, 2015, Boston, Massachusetts, **USA**.

42. **Nageh K. Allam**, Low-Power Flexible Light Sensors Based on ZnO Nanorods, *MRS Fall Meeting*, November 30 - December 5, 2015, Boston, Massachusetts, **USA**.

43. Sara H. Abel Razek Mohamed, **Nageh K. Allam**, and Mohamed A. Swillam, Optimization of the Fabricated Silicon Nanowires for Energy-harvesting Applications, *Proc. SPIE 9358, Physics, Simulation, and Photonic Engineering of Photovoltaic Devices IV*, 93580S; doi:10.1117/12.2078373, Feb. 7, 2015, San Francisco, California, **USA**.

44. SA Razk, **Nageh K. Allam**, MA Swillam, Fabrication of crystalline silicon nanowires with different dimensions for solar cell applications, *Radio Science Conference (NRSC)*, 2015, 32nd National, 371-379.

45. S Mohamed, **Nageh K. Allam**, MA Swillam, Optimization of the fabricated silicon nanowires for energy-harvesting applications, *SPIE OPTO*, 93580S-93580S-8, **USA**.

46. M Fadlallah, A Zedan, **Nageh K. Allam**, A Aljaber, S AlQaradawi, Optimization Of The Electronic And Optical Properties of TiO_2 For Clean Fuel Production, *Qatar Foundation Annual Research Conference*, EEPP0201, 2014

47. **Nageh K. Allam**, Solar Cells Based on Earth-Abundant CZTS Stacked Layers, *MRS Fall meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

48. **Nageh K. Allam**, Low-Temperature Solution-Processed Flexible Solar Cells Based on InGaN Nanocubes, *MRS Fall Meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

49. **Nageh K. Allam**, Visible-Light Photoactive Cuboid Cu_2ZnSnS_4 Nanocrystals for Energy Conversion, *MRS Fall Meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

50. **Nageh K. Allam**, Earth Abundant Nanostructured Photoanodes with Staggered Bandgap for Solar Energy Conversion, *MRS Fall Meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

51. **Nageh K. Allam** and Ahmed Hafez, $BaTaO_2N$ with Perovskite-Type Structure for Solar Energy Conversion, *MRS Fall Meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

52. **Nageh K. Allam**, Sara Abdel Razek and Mohamed A. Swillam, Vertically-Aligned Crystalline Silicon Nanowires with Controlled Diameters for Energy Conversion Applications: Experimental and Theoretical Insights, *MRS Fall Meeting*, November 30 - December 5, 2014, Boston, Massachusetts, **USA**.

53. Siham Y. AlQaradawi and **Nageh K. Allam**, Photocatalytic Conversion of CO_2 into Hydrocarbon Fuels on Decorated-TiO_2 Nanotube Arrays, *World Renewable Energy Congress – WREC*, August 4-7, 2014, Brighton, **UK**.

54. **Nageh K. Allam**, Layered Tantalum Oxynitride Nanorod Array Carpets for Efficient Photoelectrochemical Conversion of Solar Energy, *MRS Fall Meeting*, December 1-6, 2013, Boston, Massachusetts, **USA**.

55. Basamat S. Shaheen and **Nageh K. Allam**, Thermal/Electrochemical Growth and Characterization of One-Dimensional ZnO/TiO_2 Hybrid Nanoelectrodes for Solar Fuel Production, *MRS Fall meeting*, December 1-6, 2013, Boston, Massachusetts, **USA**.

56. S. Hussein, **Nageh K. Allam**, and M. A. Swillam, Silicon Nanowires with controlled diameters for energy conversion applications, *Frontiers in Optics 2013/Laser Science* XXIX, OSA.

57. R. Nashed, S. S. Jang, Y. Ismail, and **Nageh K. Allam**, Towards a perfect system for solar hydrogen production: an example of synergy on the atomic scale, *SPIE Solar Energy and Technology*, 25 - 29 August 2013, San Diego, **USA**, Paper 8822-9, 88220A-88220A-7.

58. **Nageh K. Allam**, One-dimensional oxynitride array films for enhanced photoelectrochemical hydrogen production, *223rd ECS Meeting*, May 12-17, 2013, Toronto, **Canada**.

59. **Nageh K. Allam**, Heteroepitaxial Growth of GaN/Si (111) Junctions in Ammonia-Free Atmosphere: Charge Transport, Optoelectronic, and Photovoltaic Properties, *MRS Spring Meeting*, April 1-5, 2013, San Francisco, CA, **USA**.

60. **Nageh K. Allam**, ZnO Nano-Tetrapod Photoanodes for Enhanced Solar-Driven Water Splitting, *MRS Spring Meeting*, April 1-5, 2013, San Francisco, CA, **USA**.

61. Shady Abd El-Nasser, **Nageh K. Allam**, and A.M.K. Esawi, Design and Fabrication of 1D Metal Oxide Photoanode for Solar-Driven Hydrogen Production, Fifth Annual International Workshop on Advanced Materials (IWAM), Feb. 24 –26, 2013, Ras Al Khaimah, **UAE**.

62. Ramy Nashed, Walid M. I. Hassan, Yehea Ismail and **Nageh K. Allam**, Ta_2O_5: The Challenging Puzzle of Polymorphism and Bandgap Made Simple with DFT, Fifth Annual International Workshop on Advanced Materials (IWAM), Feb. 24 –26, 2013, Ras Al Khaimah, **UAE**.

63. Ramy Nashed, Walid M. I. Hassan, Yehea Ismail and Nageh K. Allam, Towards a Perfect System for Solar Hydrogen Production: An Example of Synergy on the Atomic Scale, *Proceedings of SPIE* - The International Society for Optical Engineering 8822 · September 2013.

64. **Nageh K. Allam**, Vertically Oriented Oxynitride Nanotube Arrays for Enhanced Photoelectrochemical Water Splitting, *MRS Fall Meeting*, November 28 - December 2, 2011, Boston, MA, **USA**.

65. Zohreh Razavi Hesabi, **Nageh Allam**, Hossein Sojoudi, Klaus Dahmen, Hamid Garmestani, Mostafa El-Sayed, TiO_2 Nanotubes/CNTs/Graphene Heterojunction Electrodes for Solar Energy-Driven Applications, *MRS Fall Meeting*, November 28 - December 2, 2011, Boston, MA, **USA**.

66. Hoda A. Hamedani, **Nageh K. Allam** and Hamid Garmestani, In-situ Decoration and Doping of TiO_2 Nanotube Arrays, *Clean Technology Conference*, June 13-16, 2011, Boston, MA, **USA**.

67. HA Hamedani, **Nageh K. Allam**, H Garmestani, Synthesis and Characterization of Vertically Oriented Sr-doped TiO_2 Nanotubes Using Electrochemical Anodization Process, *Minerals, Metals and Materials Society/AIME*, Feb. 2011, Warrendale, PA, **USA**.

68. **Nageh K. Allam**, Hoda A. Hamedani, Hamid Garmestani and Mostafa A. El-Sayed, Anodically Fabricated Sr-Doped TiO_2 Nanotube Arrays for Enhanced Photoelectrochemical Water Splitting, MRS Meeting, April 25-29, 2011, San Francisco, CA, **USA**. *MRS Proceedings* 2011 1352 : mrss11-1352-gg16-04 (5 pages).

69. **Nageh K. Allam,** Hoda A. Hamedani, Hamid Garmestani and Mostafa A. El-Sayed, Synthesis and Characterization of Vertically Oriented Sr-doped TiO_2 Nanotubes Using Electrochemical Anodization Process, 140th *TMS Annual Meeting*, February 27 - March 3, 2011, San Diego, CA, **USA**.

70. **Nageh K. Allam** and C. A. Grimes, Low Temperature Techniques to Induce Crystallinity in Anodically Formed Metal Oxide Nanotube Arrays, *MRS Fall Meeting*, Dec. 1-5, 2008, Boston, **USA**.

71. **Nageh K. Allam**, E.A.Ashour, H.S.Hegazy, B.E.El-Anadouli and B.G.Ateya, Adverse Effects of Benzotriazole on the Corrosion of Cu-Ni Alloys in Sulfide Polluted Salt Water *The 24th Annual Conference* "Corrosion Problems In Industry", 5-8 Dec., 2005, Ain El Sukhna, Red Sea, **Egypt**.

72. **Nageh K. Allam**, E.A.Ashour, H.S.Hegazy and B.G.Ateya, "Effects of Benzotriazole on the Localized Corrosion of Copper Nickel Alloys in Sulfide Polluted Salt Water" *Corrosion Science in the 21st Century*, UMIST, July 2003, **UK**.

Invited Talks (Total: 22)

1. "Ordered Nanoscale Materials for Energy Applications", *London South Bank University* (LSBU), London, UK, July, 2016.

2. "Design and assembly of one-dimensional nanostructured materials for solar energy conversion", *EMN Prague Meeting*, Prague, Czech Republic, June 21-24, 2016.

3. "Design and assembly of one-dimensional nanostructured materials for solar energy conversion", TWAS 13th General Conference, *Austrian Academy of Sciences*, Vienna, Austria, November, 2015.

4. "Ordered Nanoscale Materials for Energy Applications", *Massachusetts Institute of Technology* (MIT), Cambridge, USA, August, 2015.

5. "Ordered Nanoscale Materials for Energy Applications", *Qatar University*, Doha, Qatar, April 6th, 2015.

6. "Nanostructured Materials for Solar Fuel Generation", *Harvard University*, Cambridge, USA, August 19th, 2014.

7. "Innovative Cooling System and Materials for Low-Cost PV Technology for Harsh Environment", Solar Energy Systems, *University of Nottingham*, UK, 31 March-3rd April, 2014.

8. "Design and Assembly of 1D Nanostructured Materials for Solar Energy Conversion: Solar-Fuel Generation as an Example", *QEERI, Qatar Foundation*, Doha, Qatar, September 24th, 2013.

9. "Design of Nanostructured Materials for Solar Energy Conversion", Materials Science and Applied Physics Department, *California Institute of Technology* (CalTech), June 20, 2013.

10. "Design of Nanostructured Electrodes for Solar Energy Conversion", **Keynote Speaker**, Annual Meeting of the *Japanese Society for the Promotion of Science (JSPS) Association* on "Role of Science and Technology in Sustainable Development" Cairo, Egypt, December 16th, 2012.

11. "Design of Nanostructured Electrodes for Solar Energy Conversion", **Keynote Speaker**, *Nanotechnology Day, Cairo University*, Egypt, February 27th, 2013

12. "Design and Assembly of 1D Nanostructured Materials for Solar-Driven Water Splitting", *US-Egypt Solar Workshop* 2012: Cairo, Egypt, March 11th-14th, 2012.

13. "Design and Assembly of 1D Nanostructured Materials for Solar-Driven Water Splitting", *Arab Forum 2011*: Industrial Applications of Nanotechnology, Cairo, Egypt, December 27th, 2011.

14. "Design and Assembly of 1D Nanostructured Materials for Solar Energy Conversion: Solar-Fuel Generation as an Example", Department of Physics, *Northeastern University*, Boston, United States, December 2nd, 2011.

15. Growth and Optimization of Highly-Ordered Metal Oxide Nanotube Arrays for Solar-Driven Hydrogen Production", *Masdar Institute of Science and Technology (MIST)*, Abu Dhabi, United Arab Emirates, October 27, 2010.

16. "Synthesis and Solar Energy Applications of Highly-Ordered Metal Oxide Nanotube Arrays", Energy and Engineering Sciences Directorate, *Oak Ridge National Laboratory*, Tennessee, United States, November 20, 2009.

17. "An Investigation into the Doping and Crystallinity of Anodically Fabricated TiO_2 Nanotube Arrays: Towards an Efficient Material for Solar Energy Applications" *IBM T.J. Watson Research Center*, Yorktown Heights, NY, United States, March 11-13, 2009.

18. "Synthesis and Solar Energy Applications of Highly-Ordered Metal Oxide Nanotube Arrays", Department of Chemistry, *University of California, Berkeley*, CA, United States, December 11-13, 2008.

19. "Towards Enhancing the Photocleavage of Water Using Titania Nanotube Arrays", *USC NanoCenter, University of South Carolina*, Columbia, SC, United States, November 18-20, 2008.

20. "Synthesis and Solar Energy Applications of Highly-Ordered TiO_2 Nanotube Arrays ", Department of Chemistry and Biochemistry, *University of Michigan*, Ann Arbor, MI, United States, November 6-7, 2008.

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