

# AYMAN HASSAN ZAKI AHMED

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## EDUCATION

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| May-2003             | Cairo University                                    | Cairo, Egypt     |
| ▪ Faculty of Science | Chemistry Dept.                                     | Grade: Very good |
| 2004                 | Cairo University-Beni-suef branch                   |                  |
| ▪ Faculty of Science | Pre-master Degree of science in Inorganic chemistry |                  |
| 2005-2007            | Beni-suef University                                |                  |
| ▪ Faculty of Science | M.Sc in chemistry in the field of Nano-Science      |                  |

Thesis entitled:

(Physicochemical properties, reduction and reoxidation of Nanocrystallite  $\text{Cu}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ )

- PhD 2015, Thesis entitled:

Photocatalytic degradation of some artificial food dyes present in industrial waste-water.

## POSITIONS AT BENI-SUEF UNIVERSITY

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- 1- Assoc. Prof. of Materials science and nanotechnology, Faculty of postgraduate studies for advanced sciences, Beni-Suef University
- 2- Quality and technical manager of center of excellence, , Faculty of postgraduate studies for advanced sciences
- 3- Former Central Laboratory assistant manager, Faculty of postgraduate studies for advanced sciences
- 4- Former vice director of Innovation, Patency and Research Excellence Center Support unit
- 5- Former quality assurance assistant Manager, Faculty of postgraduate studies for advanced sciences

## PUBLICATIONS:

No	Title	Year
1.	Zeolitic imidazolate framework@ hydrogen titanate nanotubes for efficient adsorption and catalytic oxidation of organic dyes and microplastics M Zanaty, AH Zaki, SI El-Dek, HN Abdelhamid Journal of Environmental Chemical Engineering 12 (3), 112547	2024
2.	Mercuric oxide nanoparticles deferred germination and devastated root anatomy of maize YM Hassan, H AbdElgawad, AH Zaki, O Hammouda, SEA Khodary Pollution	2024
3.	Synthesis of Titanate Nanotube for Antibacterial and Tissue Regeneration Applications LM Kassem, AH Zaki, AG El-Deen, SI El-Dek Inorganic Chemistry Communications 161, 112038	2024
4.	"Electrospun Manuka Honey@PVP Nanofibers Enclosing Chitosan-Titanate for Highly Effective Wound Healing" LM Kassem, A.H. Zaki, S. I. El-Dek, Ahmed G. El-Deen Cellulose journal	2023
5.	Controlled Synthesis of Oxidation-Insensitive Green Rust, a Mixed-Valent Iron Mineral, for Enhancing Solar Hydrogen Production viaHydrolysis of Ammonia Borane Ayman H. Zaki, Nao Tsunoji, and Yusuke Ide* <b>(NIMS affiliation)</b> ACS Sustainable Chemistry & Engineering	2023
6.	In-situ construction of Zr-based metal-organic framework core-shell heterostructure for photocatalytic degradation of organic pollutants YS Abdel Aziz, M Sanad, RM Abdelhameed, AH Zaki* <b>(NIMS affiliation)</b> Frontiers in Chemistry 10, 1102920	2023
7.	Unexpected behavior during methylene blue adsorption over H-titanate nanotubes and nanosheets A.H. Zaki*, Shima Rashad, Ming-Jer Lee, Nabila Shehata	2022
8.	Electronic Structures and Electrical Properties of Cr <sup>2+</sup> -, Cu <sup>2+</sup> -, Ni <sup>2+</sup> -, and Zn <sup>2+</sup> -Doped Sodium Titanate Nanotubes H Samir, M Taha, SI El-Dek, AH Zaki* ACS omega	2022
9.	Economic and facile approach for synthesis of graphene–titanate nanocomposite for water reclamation AH Zaki*, ATA Motagaly, R Khaled, MJ Lee, AA Farghali, N Shehata Journal of Contaminant Hydrology 250, 104052	2022
10.	Valorization of industrial iron and zinc sludges for the synthesis of ZnFe <sub>2</sub> O <sub>4</sub> ceramics Amira MM Amin, Yosra MM Soliman, SI El-Dek, Yasser MZ Ahmed, AH Zaki Journal of Magnetism and Magnetic Materials	2022
11.	Flocculation of microalgae using calcium oxide nanoparticles; process optimization and characterization M Hussein, A Zaki, N Abdel-Raouf, K Alsamhary, W Fathy, ... International Aquatic Research 14 (1), 63-70	2022
12.	Facile synthesis of Ni-incorporated and nitrogen-doped reduced graphene oxide as an effective electrode material for tri (ammonium) phosphate electro-oxidation NAM Barakat, E Ahmed, AA Farghali, MM Nassar, GMK Tolba, AH Zaki Materials Advances 3 (6), 2760-2771	2022
13.	Ni - Decorated Multi - Walled Carbon Nanotubes for Electro - Oxidation of Tri (ammonium) Phosphate as New Hydrogen Source Material NAM Barakat, E Ahmed, AA Farghali, MM Nassar, GMK Tolba, AH Zaki ChemistrySelect 7 (25), e202200318	2022
14.	Green synthesis of zinc hydroxide nanoparticles using culture filtrate of Macrophomina phaseolina and Sclerotium rolfsii, and evaluating their antimicrobial activities MR Manal M. Abdel-Alim, Farag Mohamed Farag Abd-Alla, A. H. Zaki Bulletin of Environment, Pharmacology and Life Sciences	2022

15.	Electro-oxidation of tri (ammonium) phosphate: New hydrogen source compatible with Ni-based electro-catalysts NAM Barakat, E Ahmed, AA Farghali, MM Nassar, GMK Tolba, AH Zaki International Journal of Hydrogen Energy 47 (60), 25280-25288	2022
16.	Composite Catalyst for Conversion of Plastic Waste to Fuel: Preparation and Performance A Abdelrahman, AH Zaki, AS Hamouda International Journal of Self-Propagating High-Temperature Synthesis	2022
17.	Photocatalytic degradation of organic dyes using LaFeO <sub>3</sub> Hollow Fibers prepared by template method Egyptian Journal of Chemistry MM Samy, AH Zaki*, AA Farghali, MM EL-Deeb	2022
18.	Effect of Different TiO <sub>2</sub> Morphologies on the Activity of Immobilized Lipase for Biodiesel Production Kholoud El-Kady, Mai Raslan, and Ayman H. Zaki* ACS Omega, 2021	2021
19.	Improved production of titanate nanotubes by hydrothermal method for adsorption of organic dyes Ayman H Zaki*, Sara Adel, Abd El-hafiez, M Mahmoud, Ahmed A Abdel-Khalek Beni-Suef University Journal of Basic and Applied Sciences, 2021	2021
20.	Innovative biotemplates for the synthesis of ZnO nanoparticles with versatile morphologies Aya El-Shafey, Reham Shams El Din, Sarah H Abdelazim, Nahla Mamdouh, SI El-Dek, AH Zaki Journal of Sol-Gel Science and Technology	2021
21.	Studying and evaluating catalytic pyrolysis of polypropylene Ameen Abdelrahman, Asmaa Hamouda, Hamdy Mohamed, Ayman Zaki Egyptian Journal of Chemistry	2021
22.	COMPARATIVE EVALUATION OF DIFFERENT GARLIC EXTRACTS AGAINST ANTIBIOTIC RESISTANT BACTERIA MENNA NAGY, AH ZAKI, AYMEN S YASSIN, HALA SH SALAM, MAI RASLAN PLANT CELL BIOTECHNOLOGY AND MOLECULAR BIOLOGY 2021	2021
23.	Effect of hydrothermal time and acid-washing on the antibacterial activity of Sodium titanate nanotubes H Mohamed, AH Zaki, Fatma I Abo El-El, SI El-dek IOP Conference Series: Materials Science and Engineering 2021	2021
24.	Catalytic thermochemical cracking of polyethylene over nanocomposite bentonite clay AS Hamouda, P Acharjee, A Abdelrahman, AM Radwan, AH Zaki, A Farghali, HFM Mohamed, A Yadav, A Bhatnagar, A Goel IOP Conference Series: Materials Science and Engineering 2021	2021
25.	Assembling a Bunch of Transition Metals Oxides on Sodium Montmorillonite Layer for Anionic Polymerization of Butyl Methyl Acrylate Ameen Abdelrahman, Aly M Radwan, AH Zaki, Asmaa S Hamouda Journal of Nanostructures 2021	2021
26.	Fabrication of a novel composite material used for thermo-cracking of Plastic Waste Ameen Abdelrahman, A Farghali, AH Zaki, Asmaa S Hamouda Journal of Materials and Environmental Science 2021	2021
27.	TiO <sub>2</sub> -Nanotube: An Advanced Electron Transport Material for Enhancing Efficiency and Stability of Perovskite Solar Cells AM Elseman, <u>AH Zaki</u> , AE Shalan, MM Rashad, Q Song Industrial & Engineering Chemistry Research	2020

28.	Changing the morphology of one-dimensional titanate nanostructures affects its tissue distribution and toxicity N Kamal, <u>AH Zaki</u> , AAG El-Shahawy, OM Sayed, SI El-Dek Toxicology and industrial health 36 (4), 272-286	2020
29.	Enhancement of microbial lipase activity via immobilization over sodium titanate nanotubes for fatty acid methyl esters production Dina Nady, <u>A.H. Zaki</u> , Mai Raslan, Walaa Hozayen International journal of biological macromolecules	2020
30.	Biosynthesis of Silver Nanoparticles from Synechocystis sp to be Used as a Flocculant Agent with Different Microalgae Strains W Fathy, K Elsayed, E Essawy, E Tawfik, <u>A Zaki</u> , MS Abdelhameed, Current nanomaterials .	2020
31.	Reducing nephrotoxicity induced by TiO <sub>2</sub> nanoparticles by some medicinal plants HM Rabea, M.M., Abdelhafiz, H.A., Abdellateef, A.M., <u>Zaki, A.H.</u> , El-Kott, A ... Plant Archives 20, 2289-2298	2020
32.	Ameliorative effects of graviola and turmeric versus TiO <sub>2</sub> nanoparticles induced hepatotoxicity in rats HM Rabea, M.M., Abdelhafiz, H.A., Abdellateef, A.M., <u>Zaki, A.H.</u> , El-Kott, A ... Plant Plant Archives 20, 745-754	2020
33.	Acceleration of ammonium phosphate hydrolysis using TiO <sub>2</sub> microspheres as a catalyst for hydrogen production <u>AH Zaki</u> , AE Shalan, A El-Shafeay, YM Gadelhak, E Ahmed, ... Nanoscale Advances 2 (5), 2080-2086	2020
34.	Prostate Cancer Cellular Uptake of Ternary Titanate Nanotubes/CuFe <sub>2</sub> O <sub>4</sub> /Zn-Fe Mixed Metal Oxides Nanocomposite AAG El-Shahawy, SAA Moaty, <u>AH Zaki</u> , NA Mohamed, Y Gadelhak, ... International Journal of Nanomedicine 15, 619	2020
35.	Effects of K <sup>+</sup> , Mg <sup>2+</sup> , Ca <sup>2+</sup> , Zn <sup>2+</sup> , La <sup>3+</sup> , Cr <sup>3+</sup> , Ce <sup>3+</sup> , Ce <sup>4+</sup> , and Mo <sup>5+</sup> Doping on the Adsorption Performance and Optical Properties of Sodium Titanate ... <u>A.H. Zaki</u> , Ming-Jer Lee ACS omega	2019
36.	Selective Photodegradation Using Titanate Nanostructures <u>A.H. Zaki</u> , W.M.A. El Rouby Photocatalysts-Applications and Attributes, Book chapter	2019
37.	Novel magnetic standpoints in Na <sub>2</sub> Ti <sub>3</sub> O <sub>7</sub> nanotubes <u>A.H. Zaki</u> , M.A. Hafiez, W.M.A. El Rouby, S.I. El-Dek, A.A. Farghali Journal of Magnetism and Magnetic Materials 476, 207-212	2019
38.	Sodium titanate nanotubes for efficient transesterification of oils into biodiesel <u>A.H. Zaki</u> , A.A. Naeim, S.I. EL-Dek Environmental Science and Pollution Research, 1-13	2019
39.	Nanocomposite system of simultaneously-thiolated graphene oxide and polyaniline nanofibers for energy storage applications M. Farid, M.A.F. Basha, <u>A.H. Zaki</u> , M.H. Khedr Electrochimica Acta 300, 1-8	2019
40.	Kinetics study on esterification of acrylic acid and ethanol over acidic cation-exchange resin beads Amberlyst 35 Jer-Wei Lin, <u>A.H. Zaki</u> , Hsien-Tsung Wu, Ho-mu Lin, Ming-Jer Lee Journal of the Taiwan Institute of Chemical Engineers	2019
41.	Morphological effect of titanate nanostructures on the photocatalytic degradation of crystal violet Shimaa Rashad, <u>A.H. Zaki</u> , A.A. Farghali Nanomaterials and Nanotechnology 9, 1847980418821778	2019
42.	Efficient Removal of Lead and Cadmium ions by Titanate Nanotubes Prepared at Different Hydrothermal Conditions M.A. Alwaili, H.A.M. Elbaghdady, <u>A.H. Zaki</u> , M.A. Sallam Current Nanoscience 15 (2), 197-208	2019
43.	Nano Titania combined with micro silica reinforced limestone cement: Physico-mechanical Investigation Basma A.A Balboul; Mohamed Abdelzاهر ; Asmaa S. Hamouda; <u>A.H. Zaki</u> The Egyptian Journal of Chemistry	2019
44.	Alginate-pectin-zeolite composites for controlled release of fertilizers and antifungal agents M.M. ABDELATY, <u>A.H. ZAKI</u> , IBRAHIM M. EL-SHERBINY AND A.A. FARGHALI	2019

	<i>Res. on Crops</i> 20 (4) : 695-700 (2019)	
45.	Morphology transformation from titanate nanotubes to TiO <sub>2</sub> microspheres <u>A.H. Zaki</u> , Aya El-Shafey, Sara M. Moatmed, Rahma A. Abdelhay, Esraa F. Rashdan, Romisaa M. Saleh, Mohamed Abd-El Fatah, Marwa M. Tawfik, Mohamed Esmat, S.I. El-dek <i>Materials Science in Semiconductor Processing</i> 75, 10-17, 2018	2018
46.	Visible light assisted photocatalytic degradation of crystal violet, bromophenol blue and eosin Y dyes using AgBr-ZnO nanocomposite Ahmed A. Abdel-Khaleka, S.A. Mahmoud, <u>A.H. Zaki</u> <i>Environmental Nanotechnology, Monitoring &amp; Management</i> 9, 164–173	2018
47.	Comparative study of the entomotoxic effect of SiO <sub>2</sub> +TiO <sub>2</sub> , CuO+TiO <sub>2</sub> and ZnO+TiO <sub>2</sub> nanoparticles mixtures against <i>Spodoptera littoralis</i> A.M. Shaker, <u>A.H. Zaki</u> , Elham. F. Abdel-Rahim , M.H. Khedr <i>Academia Journal of Agricultural Research</i> 6 (5), 122-132	2018
48.	Synthesis of Fe/Co-doped titanate nanotube as redox catalyst for photon-induced water splitting Mohamed S. Mahmoud, Enas Ahmed, A.A. Farghali, <u>A.H. Zaki</u> , Nasser A.M. Barakat, <i>Materials Chemistry and Physics</i> 217, 125–132	2018
49.	Influence of Mn, Cu, and Cd-doping for titanium oxide nanotubes on the photocatalytic activity toward water splitting under visible light irradiation Mohamed S. Mahmoud, Enas Ahmed, A.A. Farghali, <u>A.H. Zaki</u> , Emad A.M. Abdelghani, Nasser A.M. Barakat, <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 554, 100-109	2018
50.	FexCo1-x-doped titanium oxide nanotubes as effective photocatalysts for hydrogen extraction from ammonium phosphate Nasser A.M. Barakat, <u>A.H. Zaki</u> , Enas Ahmed, A.A. Farghali, Fahad S. Al-Mubaddel <i>International Journal of Hydrogen Energy</i> 7997,2018-43,16,7990,	2018
51.	Synthesis, physicochemical properties and photocatalytic activity of nanosized Mg doped Mn ferrite E.F. Attia, <u>A.H. Zaki</u> , S.I. El-Dek, A.A. Farghali <i>Journal of Molecular Liquids</i> 231 (2017) 589–596	2017
52.	TiO <sub>2</sub> nanoparticles as an effective nanopesticide for cotton leaf worm A.. Shaker, <u>A.H. Zaki</u> , Elham. F. Abdel-Rahim , M.H. Khedr <i>Agricultural Engineering International: CIGR Journal, Special</i>	2017
53.	Sodium titanate - Bacillus as a new Nanopesticides for Cotton Leaf-Worm A.M. Zaki, <u>A.H. Zaki</u> , A.A. Farghali, Elham. F. Abdel-Rahim <i>Journal of Pure and Applied Microbiology</i> 11 (2), 725-732	2017
54.	Titanate-Bacillus Nanocomposite as a Novel Nanopesticide for Cotton Leafworm A.M. Zaki, <u>A.H. Zaki</u> , A.A. Farghali, Elham. F. Abdel-Rahim <i>DER PHARMA CHEMICA</i> 9 (14), 178-186	2017
55.	Estimation The Median Lethal Dose and Inhibitory Concentration of TiO <sub>2</sub> , SiO <sub>2</sub> , ZnO and CuO Nanoparticles on Human Hepatoma HEPG2 Cells A.M. Shaker, El-Shahawy A , <u>A.H. Zaki</u> , Elham F. Abdel-Rahim, M.H. Khedr <i>International Journal of Pharmaceutical and Phytopharmacological Research</i> 7,6,18-23,201	2017
56.	Photocatalytic Degradation of Carbamate Pesticide (methomyl) Using Synthesized TiO <sub>2</sub> Nanoparticles Against the Cotton Leafworm <i>S. littoralis</i> A.M. Shaker, <u>A.H. Zaki</u> , Elham. F. Abdel-Rahim , M.H. Khedr <i>Egyptian Academic Journal of Biological Sciences, F. Toxicology &amp; Pest control</i> , 9(3), 157-168.	2017
57.	Novel CuO nanoparticles for pest management and pesticides photodegradation A.M. Shaker, <u>A.H. Zaki</u> , Elham. F. Abdel-Rahim and M.H. Khedr <i>Advances in Environmental Biology</i> ,10,12,274-283	2016
58.	Control of Selectivity in Heterogeneous Photocatalysis by Tuning TiO <sub>2</sub> Morphology for Water Treatment Applications Ahmed A. Farghali, <u>Ayman H. Zaki</u> and Mohamed H. Khedr <i>Nanomaterials and Nanotechnology</i> 6 (2016): 12, 2014	2016
59.	Hydrothermally synthesized TiO <sub>2</sub> nanotubes and nanosheets for photocatalytic degradation of color yellow sunset M.H. Khedr, A.A. Farghali, <u>A.H. Zaki</u> <i>International Journal of Advanced Research</i> 2 (7), 285-291	2014
60.	CO <sub>2</sub> decomposition over freshly reduced nano-crystallite Cu <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> at 400–600 oC M.H. Khedr, K.S. Abdel Halim, A.H. Zaki <i>J. Anal. Appl. Pyrolysis</i> 81 (2008) 272–277	2008
61.	Kinetics and mechanisms of the reduction of Cu <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> with hydrogen at 400–600 °C for the production of metallic nanoparticles K.S. Abdel Halim, M.H. Khedr, <u>A.H. Zaki</u> <i>J. Anal. Appl. Pyrolysis</i> 80 (2007) 346–352	2007

### **Funded Projects:**

**Team member in the following projects (PI in two projects, Co-PI in three):**

- 1) **Controlling size and morphology of CuO nanoparticles for water treatment applications.** Funded by STDF 2012
- 2) **Photodegradation of some food dyes and bacterial inhibition of some bacteria that present in industrial waste-water and designing a treatment reactor prototype.** Funded by Beni-suef University 2013
- 3) **Doped TiO<sub>2</sub>/graphene nano composites for large scale H<sub>2</sub> production from waste water.** Funded by STDF 2015
- 4) **Formulation and Evaluation of Topical Formulations Containing U.V. Shielding Nano-Metallic components.** Funded by Beni-suef University 2015
- 5) **Chemical Routes to Nanostructured Materials for Solar Cell Applications.** Funded by Academy of scientific research
- 6) **Synthesis of innovative hollow fibers polymer nanocomposite for selective removal of arsenic from drinking and ground water.** funded by STDF 2015
- 7) **"Design, Implementation and Performance of 10kW Rooftop Grid Connected PV System: PSAS Faculty : as a Case Study"** Funded by Beni-suef University 2015
- 8) **Beni-Suef University Nanotechnology Center of Excellence. Submitted to Beni-Suef University**
- 9) **Titanate nanostructures for removal of toxic heavy metals form water. Egypt-KSA project funded with 600000 L.E** funded by Princess Noura University, KSA , 2016
- 10) **Titanate nanostructures as multinational filtering media for Radioactive elements, heavy metals and dyes removal,** Funded by Beni-suef University 2017 ( Cooperation with NIMS and Waseda University, Japan)
- 11) **Invention of a new catalyst for the economic CO<sub>2</sub> Conversion into fuel.** funded by STDF 2018 with 100,000 L.E
- 12) **Carbon quantum dots size control as a powerful tool for energy storage**  
Funded by STDF 2018 with 750,000 L.E (Just accepted)
- 13) **Economic Commercial Production of Nanomaterials for Local Market Needs**  
Funded by STDF 2018 with 8 million L.E

### **Accepted Patents**

- 1- Preparation of Iron oxide nanoparticles from animal blood wastes containing Hemoglobin by novel method
- 2- Innovative method to convert Aluminum wastes and sea water to electricity and pure water

### **Patents under Evaluation**

- 3- Preparation of Magnesium oxide nanoparticles from agricultural wastes containing Chlorophyll by novel method
- 4- Innovative method to reduce CO<sub>2</sub> emissions and to reuse cement kiln dust
- 5- Nanosized TiO<sub>2</sub> nanoparticles with different morphologies as a nano-pesticide for cotton leaves worm.
- 6- Nanosized TiO<sub>2</sub> nanoparticles with different morphologies as a nano-pesticide for cotton leaves worm.
- 7- Converting heavy toxic elements in to useful elements and used it in hydrogen production
- 8- Using ammonium phosphate as a new fuel for fuel cells applications

### **Teaching the following courses**

- 1- Applied physical chemistry
- 2- Advanced physical chemistry
- 3- Fundamentals of nanoscience
- 4- Practical preparation of nanomaterials
- 5- Environmental applications of nanotechnology
- 6- Industrial applications of nanotechnology
- 7- Nanotechnology for construction
- 8- Nanomaterials for catalysis
- 9- Good laboratory practices and safety
- 10- Laboratory Management & Quality Assurance
- 11- Hydrogen production and storage

### **Postdoctoral and Thesis supervision:**

- Postdoctoral researcher at researcher at Department of Chemical Engineering  
National Taiwan University of Science & Technology (NTUST)

**From 3/2019 to 8-2019**

- **Postdoctoral researcher at national institute of materials science, Japan**

**From 1-5-2022 to 30-9-2023**

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- **I'm Supervisor of the following students:**

	<b>Name of student</b>	<b>Registered degree</b>	<b>Thesis title</b>	<b>Status</b>
1	Alaa Zaki	M.Sc	Nano-composites Based Biological pesticides .and agricultural application	Awarded
2	Ahmed Shaker	PhD	synthesis , characterization and studying of nano materials and their use as entomotoxic nanocice	Awarded
3	Lamia Kasim	PhD	Nanohybrid and Polymer Electrospun Nano-fiber for Wound Dressings and Wound Healing Application	Awarded
4	Eslam Fathy	M.Sc	Synthesis, characterization and catalytic activity of some magnetic nanoparticles	Awarded
5	Mahmoud Abd el aty	M.Sc	Using Hydrogel in slow release of chemical fertilizers and antifungal	Awarded

6	Shimaa Rashad	M.Sc	spectroscopic investigation of semiconducting metal oxide nanoparticles in waste water treatment	Awarded
7	Khaled Zaki	M.Sc	synthesis and characterization of multifunctional TiO <sub>2</sub> -carbon nanocomposites	Finished practical work
8	Nahla Kamal	M.Sc	Effect of different titanate nanostructures on their tissue distribution	Awarded
9	Mohamed Farid	M.Sc	Nanocomposites for Arsenic Removal from Water	Awarded
10	Asmaa Naeim	M.Sc	Oil to Biodiesel Transformation Using Nanomaterials	Awarded
11	Yosra Mohaed	M.Sc	High Dense Ceramics Based Zinc from Non-standard Materials	awarded
12	Abeer Mostafa	M.Sc	Synthesis and Characterization of Multifunctional Metal Oxides Nano structure	Finished practical work
13	Hisham Sayed	M.Sc	Production of useful nanomaterials from Aluminum waste.	Practical work in progress
14	Hala Mohamed	M.Sc	Synthesis and Characterization of Biocompatible Nanostructures for Enzyme Immobilization	awarded
15	Esraa Farouk	M.Sc	Titanate-based nanostructures for removal of some harmful metals	Practical work in progress
16	Romisaa Mostafa	M.Sc	Synthesis and characterization of titanate nanotubes for heavy metals and organic pollutants removal from contaminated water	awarded
17	Sara El fouly	M.Sc	Magnetic catalysts for biodiesel production	Finished practical work
18	Dina Nady	M.Sc	Evaluation of catalytic activity of lipase using nanoparticles	Awarded
19	Kholoud El kady	M.Sc	comparative study of catalytic activity of immobilized lipase on different nano materials	awarded
20	Marwa Alaa	M.Sc	Wastewater purification using immobilized Nanophotocatalysts	Finished practical work
21	Rania Abd El Nasir	M.Sc	Corrosion Protection of Some Industrial Metals Using Nano-Hybrid Coatings	Practical work in progress
22	Mohamed Khalaf	M.Sc	Nanosized cement Kiln dust for energy and environmental applications	Practical work in progress
23	Soad Mohamed	M.Sc	APPLICATION OF NANOCATALYSTS IN THE THERMAL DESTRUCTION OF POLYETHYLENE TEREPHTHALATE (PET) TO PRODUCE FUEL	Practical work in progress
24	Manal Abd el aleem	PhD	Biosynthesis of nanoparticles using some fungal species and evaluating their antimicrobial activity.	Practical work in progress
25	Ahmed Said	M.Sc	“Synthesis and characterization of some polyurethane nano-composite for steel coating”	Finished Practical work

26	Marwa Samy	M.Sc	Preparation , Characterization and applications of some semiconductor Nano-materials	awarded
27	Sara Adel	M.Sc	“synthesis and characterization of some titanate nano-structures for dyes adsorption”	awarded
28	Mohamed El esh	PhD	Ameliorative effects of some antioxidants against Titanium oxide nanoparticles toxicity in adult male albino rats	awarded
29	Amin Taha	PhD	Preparation and Characterization of Nano-compositeCatalyst for Plastic Conversion to Fuel as a NewSource of Energy	awarded
30	Fatma Mohamed	M.Sc	Preparation of Enzymes based nanocomposites for vital applications	Finished Practical work
31	Hager Samir	M.Sc	the effect of cation exchange on electronic structure and physical properties of titanate nanotubes	awarded
32	Asmaa Abd El-Kareem	M.Sc	Computational and experimental studies on physicochemical properties of titanate materials	Finished Practical work
33	Rania Nasser	M.Sc	Tuning multifunctional titanate nanostructures for energy, environmental and biomedical application	Finished Practical work
34	Aisha Mohammed	M.Sc	Preparation of metal organic framework-titanate nanocomposite to enhance membrane performance for Water treatment residues from water	Finished Practical work
35	Dina Nady	PhD	Integration between nanomaterials and remote sensing techniques for elimination and assessment of irrigation water pollutants under Egyptian conditions	Practical work in progress
36	Mahmoud Zanaty	M.Sc	Synthesis and Characterization of Metal Organic Frameworks and their Composites for Water Treatment	To be awarded
37	Nosaiba Mohamed	M.Sc	SYNTHESIS, CHARACTERIZATION, AND MOLECULAR SIMULATIONS OF MIXED VALENT IRON COMPOUNDS FOR TECHNOLOGICAL APPLICATIONS	Practical work in progress
38	Eman Nady	M.Sc	Examining the interactive influence of nanoparticles on plant performance: A physiological study	Practical work in progress

## SOME CONFERENCES AND TRAINING COURSES

### Training courses at NIMS from 1

Role	Date	Location	Title
Trainee	20-5-2022	NIMS, Japan	Field-emission scanning electron microscope (S-4800), <b>Hitachi</b>
Trainee	20-6-2022	NIMS, Japan	Field-emission scanning electron microscope (SU8000), <b>Hitachi</b>
Trainee	20-5-2022	NIMS, Japan	<b>JASCO</b> (V-770) spectrophotometer
Trainee	31-8-2022	NIMS, Japan	(FT-IR (IRAffinity-1S) <b>Shimadzu</b>

Trainee	24-5-2022	NIMS, Japan	<b>Hitachi</b> , TG/DTA 6200
Trainee	13-5-2022	NIMS, Japan	Smart-lab <b>RIGAKU</b> X-Ray powder diffraction
Trainee	2019-10-8 إلى 2019-10-9	Egypt	Masterclass in scientific writing and publishing <b>(By nature editors)</b>
Trainee	10-4-2019	Taiwan	Laboratory Safety Training Course
Organizer and Trainee		Egypt	Enhance your research using NANO Research Solution <b>(By Springer Nature instructors)</b>
Trainee	4-2-2018	Egypt	Research management <b>(BY DAAD Cairo office)</b>
Trainee	6-9-2016	Egypt	Paper publishing <b>(BY DAAD Cairo office)</b>
Trainee	3-11-2016	Egypt	Competitive research proposal writing <b>(BY DAAD Cairo office)</b>
Trainee	26-4-2016	Egypt	Proposal writing Post Doc <b>(BY DAAD Cairo office)</b>
Trainee	18-12-2016	Egypt	International networking <b>(BY DAAD Cairo office)</b>
attendant	17-21 March 2017	Sharm El-Egypt-Sheikh	9 <sup>th</sup> international conference on Nano-Technology in construction (organized by housing and building national research center)
Presenter	18-20 October 2016	National research center Egypt -	The 7 <sup>th</sup> international conference on optical spectroscopy, Laser and their applications
Presenter	16-20 March 2015	Sharm El-Egypt-Sheikh	The 12 <sup>th</sup> international conference on chemistry and its role in development <b>(Organized by Mansoura University)</b>
Organizer	17-20 November 2015	Egypt-Hurgada	The 3 <sup>rd</sup> international conference of advanced applied sciences <b>(Organized by Beni-Suef University)</b>
Presenter	10-12 April 2016	Beni-Suef University	The 1 <sup>st</sup> international conference of environmental security and global climate change
Organizer	7-10 November 2017	Egypt - Hurgada	The 4 <sup>th</sup> international conference of advanced sciences
Organizer and instructor	2-2-2016	Beni-Suef University	Training course of nanoscience and nanotechnology
Organizer and instructor	3-5 March 2015	Beni-Suef University	Nanobiotechnology training course
attendant	28-3-2015	Beni-Suef University	Workshop on scientific writing
Trainee	2016-2015 ساعة 220	Egypt	Professional diploma for foundation of future leaders (Ministry of youth)

Trainee	23-26 March 2014	UAE	Training program on Fundamentals of atomic absorption spectrometers
Trainee	4-8 August 2014	Germany	Training program on GC-Mass
Presenter	11-15 March 2013	Sharm El-Egypt-Sheikh	The 11 <sup>th</sup> international conference on chemistry and its role in development <b>(Organized by Mansoura University)</b>
Organizer and instructor	22-23 April 2014	Beni-Suef University	Training course in nanotechnology for Zewail City friends
Organizer and presenter	2-4 April 2014	– Hurgada Egypt	The 2nd international conference on advanced basic and applied sciences (ABASII)
Organizer	27 February 2013	Cairo University Egypt –	One day seminar about nanotechnology
Organizer and instructor	16-18 April 2013	Beni-Suef University	Training course in nanotechnology
Organizer and instructor	9-12 April 2012	Beni-Suef University	Training course in nanotechnology
Organizer and presenter	6-9 Nov. 2012	Beni-Suef University	The 1st international conference on advanced basic and applied sciences (ABAS)
attendant	19- Jan.- 2010	Egypt – Cairo	Technical seminar about nanotechnology sponsored by Egypt nanotechnology center, Cairo university and Nile university
attendant	29-30 April 2009	Ain Shams University	Workshop on (National Industries for Renewable Energy and Enviromental Equipment). Sponsored by RDI, Faculty of Science (Ain-Shams), .DRC, NREA, and Photoenergy Center
Presenter	22-23 June 2009	Beni-Suef University	1 <sup>st</sup> Conference for postgraduate students, Beni Suif University - Faculty of Science
Presenter	2-4 December 2007	National research center	1st International Conference On Materials science and Nanotechnology
Trainee	28-29/06/2011	Cairo	Internal Audit Training
Trainee	2010 ساعة 120	Cairo University	Total Quality Management Diploma
Trainee	12/2009	Cairo	Training about OHSAS 18001:2007 requirements
Trainee	2009-3	Cairo	Microbiological analysis training by Givaudan Holland microbiology team manager
Trainee	30/8/2008	Cairo	Fire-fighting training
Trainee	2006/6/12	Cairo	GMP Training
Trainee	22-23 April 2008	Cairo	SHE Training For key personal in Givaudan Egypt
Trainee	25/11/2006	Cairo	First Aid Training

Trainee	12/2005	Cairo	Training on Understanding & Implementation of 5S System
Trainee	2005-7	Cairo	Training program on “Introduction to Gas Liquid Chromatography in flavors & raw materials” in Quest international Egypt
Trainee	3-2008	Holland	Gas chromatography Training

## WORK EXPERIENCE

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- **5/2020** till now **Assoc. Prof.** of materials science and nanotechnology in faculty of postgraduates for advanced sciences, Beni- Suef University
- **2/2015** Lecturer ( **Assistant Prof.**) of materials science and nanotechnology in faculty of postgraduates for advanced sciences, Beni- Suef University
- **8/2013-2/2015** Assistant lecturer in faculty of postgraduates for advanced sciences, Beni- Suef University
- **5/2012 – 8/2013** Teaching assistant in research institute of advanced sciences, Beni- Suef University ( Non-academic)
- **2/2012 – 5/2012** Teaching assistant in faculty of Industrial education, Beni- Suef University ( Non-academic)
- As QC Supervisor in Givaudan Egypt (Flavours manufacturing) **2009-2012**
- Working in Givaudan Egypt (Flavours manufacturing) in QA/QC department as/QC Analyst from **3/2007-2/2009**
- Working in Quest international Egypt (Flavours manufacturing) in QA/QC department as/QC Analyst from **03/2005 till 3/2007** and my tasks are:
  - Day to day analysis of Raw materials, Intermediates and Finished products
  - Chemical, physical and microbiological analyses of raw materials.
  - Chemical, Physical and microbiological analyses of intermediate finished products.
  - GLC Analysis of raw materials & finished products
  - Organolyptic analysis of all raw materials, intermediate and finished products.
  - Implementation of QA systems and processes

- Assisting QA/Q.C Manager in evaluation of customer complaints.
- Assisting QA/Q.C Manager and team in decision making.
- Purchasing of various lab chemicals, reagents etc
- GLP (Good Laboratory Practice) implementation, which includes activities like calibration of equipment in the lab.
- Maintenance and repair of lab equipments
- Delivery check.
- Good user for all lab equipments such as :

Karl Fischer [ Moisture Content ],Salt content analyzer, Refractometer, Density meter, PH meter, Melting point, Particle size analyzer, Halogen analyzer of moisture content, UV-Visible spectrophotometer and GC instrument.

## **INTERESTS**

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-Reading, and Scientific researching

## **PERSONAL INFORMATION**

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- Date of Birth : 04/07/1981
- Marital Status : Married
- Military Status : Exempted