

## Curriculum Vitae

### Dr. Mona Mostafa Ali Saif

*Permanent address:* 6 Mahmoud El-meligy st. Masr El-gededa, Cairo, Egypt.



*Work address:* Faculty of Education, Department of Chemistry, Ain Shams University, Roxy, Cairo, Egypt.

#### PERSONAL DATA

**Date of Birth:** June 13, 1977

**Country of Nationality:** Egypt

**City:** Cairo

**Marital Status :** married

**Tel. No.:** +2 21804712; Fax: +2 22581243

**Mobile No.:** +2 0100 9642295

**E.mail:** [mona\\_saif1@yahoo.com](mailto:mona_saif1@yahoo.com); [monasaif@edu.asu.edu.eg](mailto:monasaif@edu.asu.edu.eg)

**Websites:** [www.photoenergy.org](http://www.photoenergy.org)

<https://orcid.org/0000-0002-2983-6018>

Scopus Author ID: [16302089400](https://orcid.org/0000-0002-2983-6018)

#### EDUCATION

- **Ph.D. in Inorganic Chemistry (Photochemistry and Nano-Material Science), 2006**  
*Chemistry Department, Inorganic Chemistry Division (Photochemistry and Nano-Material Science), Faculty of Education, Ain Shams University*
- **M.Sc in Inorganic Chemistry (Photochemistry and Nano-Material Science), 2002**  
*Chemistry Department, Inorganic Chemistry Division (Photochemistry and Nano-Material Science), Faculty of Education, Ain Shams University*
- **B.Sc. in chemistry (v. good, honour degree), 1998.** *from Department of Chemistry, Faculty of Education, Ain Shams University, Cairo, Egypt.*

#### ACADEMIC NOMINATIONS AND APPOINTMENTS

- **Member of the Research Council of Ain Shams University (2021- now).**
- **Professor of Inorganic Chemistry (photochemistry and Nano-material Science) (2019-now)**  
*Department of Chemistry, Faculty of Education, Ain Shams University.*
- **Assistant Prof. (Photochemistry and Nano-Material Science) (2013-2019)**  
*Department of Chemistry, Faculty of Education, Ain Shams University.*

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- **Visitor Scientist (4/2007–10/2007)**

*Department of Mechanical Engineering, Virginia Commonwealth University, Richmond, Virginia, USA*

- **Lecturer of Inorganic Chemistry (photochemistry and Nano-material Science) (2006 – 2013)**

*Department of Chemistry, Faculty of Education, Ain Shams University.*

- **Assistant lecturer (2002 – 2006)**

*Chemistry Department, Faculty of Education, Ain Shams University*

- **Demonstrator in Chemistry (1999 – 2002)**

*Chemistry Department, Faculty of Education, Ain shams University.*

## TEACHING SKILLS

**Teaching the following courses for Under graduate, Diploma, Master and Doctoral Students:**

- Analytical Chemistry.
- Environmental Pollution.
- Photochemistry.
- Solar energy and solar cells.
- Lanthanide chemistry.
- Nanotechnology.
- Inorganic chemistry.
- Renewable Energies
- Material science

## THESIS

Master Thesis:

1. Ahmed Amen Abd alhalim Mostfa, (2008-2013), Structural Diversity of Some Metallohydrazones Bearing the Quinoline Ring.
2. Rania ahmed foad, (2009-2012), Binary and Mixed Schiff base complexes of Thiosemicarbazone Derivatives and Macrocylic Compounds: Synthesis, Characterization and Potential Application.
3. Saad mahmoud abdel aziz asal, (2008-2011), Production of Renewable Energy and Industrial Wastewater Treatment Using Different Titanium Dioxide Nanocomposites.
4. Doaa anwar hamouda, (2010-2014), Photocatalytic Production of Hydrogen and

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## Degradation of Industrial Wastes.

5. Radwa Mohamed shokry (2012-2014), New Developed transition metal compounds and lanthanide based nanomaterials: Preparation, Characterization and potential Applications
6. Nermeen el-saied Ahmed, (2013-2017), Synthesis and Characterization of Luminescent nanomaterials Based on Lanthanide ions and their Applications for Latent Fingerprint Detection.
7. Mohamed fawzy hadad (2013-2018), Solar-mediated removal of organic contaminants from industrial wastewater using TiO<sub>2</sub> nanomaterials in a pilot plant photoreactor.
8. Hanan atef soliman ebaid (2015-2019), Preparation, Characterization and Environmental Application of New Nanomaterials based on heteropolyacids doped titania.
9. Rana Helmy (2015-2018) Synthesis and Characterization of new photoluminescent nanomaterials based on lanthanides for different applications.
10. Nourhan Abd-elmaboud Ibrahim (2018-2021), " Phytosynthesis of iron oxide nanoparticles using some plant extracts and studying their effect on biochemical attributes of wheat plant.
11. Marwa Zekr-allah Mostafa Salem (2021-2023), "Coumarin moiety based optical nanomaterials: Fabrication, Characterization and analytical applications."
12. Samy Hagag (2021-now)," Photovoltaic Efficiency improvement of environmentally friendly solar cell"
13. Heba Mostafa Khattab(2022-now), Production and characterization of new perovskite materials for diverse applications.
14. Hager Nasser El-saied (2023-now), Synthesis, spectral studies and different applications of some metal complexes based on salicylic acid hydrazide.
15. Hanan Salah Awad (2023-now), Synthesis, physicochemical studies of some new metal complexes based on triazine moiety and their applications.

### Ph. D. Thesis:

16. Marwa Mohamed Ibrahim, (2010-2013), New Developed Semiconductor Nanomaterials: Preparation, Characterization and its Green Chemistry Applications.
17. Saad mahmoud abdel aziz asal, (2014-2018), Production and Characterization of

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Nanomaterials based on ZnO for Environmental and Biomedical Applications.

18. Rania ahmed foad, (2014-2017), "Synthesis and Characterization of New Solid Complexes of Hydrazone Derivatives: Nano-structures Study and Different Potential Applications"
19. Wafaa el-said abdallah (2013-2015), "Production and Characterization of Silver Nanoparticles using some Soil Microorganisms"
20. Asmaa Mohamed (2013-2018) "Preparation and Characterization of Silica Composite Nanomaterials for Different Potential Applications"
21. Marium shaker gerges (2014-2019), preparation and characterization of some lanthanides doped TiO<sub>2</sub> nanoparticles on carbon based supports and their applications as efficient photocatalysts.
22. Mona Ahmed keshk (2015-2019), "Synthesis and Characterization of pure and supported metal nano-complexes for different applications"
23. Heba Mahmoud elshafiy, (2014-2020), Synthesis, characterization and application of nano-crystalline glass ceramics for green potential applications"
24. Eman Mohamed rashad (2018-2023), Synthesis and spectral studies of solid complexes based on new photoluminescent quinolinones for various applications.
25. Zaynab abd elhamed abd alraoof goubish (2017- 2021), Production and Characterization of Nanomaterials based on alkaline-earth stannate for different potential Applications"
26. Hanan Atef Soliman Ebaid (2019-2023) "Nanoparticles design and characterization for environmental applications"
27. Rana Helmy Abdo Abd El hamid (2019- 2022), Synthesis and Application of new nanomaterials doped with Lanthanide elements.
28. Omar Abdel-Mordi (2020-2022), Synthesis of plasmonic active nanomaterials for Visible light photocatalysis and its applications
29. Mona Karam Farhan (2018-now), Development of some analytical methods for determination of some drugs and their Photocatalytic degradation rate
30. Walaa hussan Mohamed (2024-now), Development and application of photoluminescent perovskite nanomaterials

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## RESEARCH INTEREST

- Light conversion devices.
- Solar energy and Photovoltaics (Dye-sensitized and polymer solar cells).
- Wastewater Treatment and analysis.
- Biogas production.
- Self-cleaning.
- Down-Up- converting nano-materials for latent fingerprint detection.
- Fluorescent sensors for analytical applications.
- Nano-Inorganic complexes and its biological applications.

## AWARDS, GRANTS AND SCIENTIFIC VISITS

- Award of Prof. .Dr. Sabry Abdel Motaleb in Basic Sciences (in the field of Photo and Solar chemistry) 2024.
- A wards for distinction and honor from Ain Shams University to be ranked among the best 2% of the world's scholars according to the Stanford University classification (2020, 2021, 2023-2024).
- Certificates of Appreciation from Ain Shams university for International publications from 2018 to 2024
- Certificate of Appreciation from the Community and Environmental Affairs Sector - Ain Shams University for distinguished efforts and effective participation in supporting the progress of the Community Service Affairs and Environmental Development Sector in the field of applied research (2018).
- Certificate of Appreciation from Chemistry Department, Faculty of Education, Ain Shams University (2015).
- Awards for Distinguished Scientific Researches Offered by MFK Foundation and BUE (2014).
- State Incentive Prize in Chemical Sciences 2013.
- Scientific Excellence Award for continuous development of scientific research published in 2012 in international journals (2010-2011) with the highest Eigen Factor from the National Authority for Quality Assurance & Accreditation of Education.
- Award for continuous development of scientific research published in 2012 in

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international journals from Ain Shams University.

- Grant from TWAS-ARO for participation in 7<sup>th</sup> Annual Meeting "Water, Nuclear and Renewable Energy: Challenges Versus Opportunities" in Alexandria (28-29 December 2011).
- Grant from the Academy of Sciences for the Developing countries (TWAS) in 2011 for participation in the Afro-Asia Workshop on Advanced Topics in Chemistry, in Jawaharal Nehru Centre for Advanced Scientific Research, Bangalore, India during June 13 - 17, 2011.
- Fellowship from The Bibliotheca Alexandrian (BA), and The Academy of Sciences for the Developing countries (TWAS) in 2010 for the TWAS/BioVisionAlexandria.NXT 2010 Conference.
- Scientific visit to Virginia Commonwealth University (VCU), School of engineering, Department of Mechanical Engineering, Energy Conversion system Laboratory. For three months (15 April to 15 October 2007). For doing Joint research in the field of "Alignment of TiO<sub>2</sub> in polymer films towards the fabrication of low-cost solid-state dye-sensitized TiO<sub>2</sub> solar cells"

#### PROJECTS

- Scientific project No. 42957 funded from the Science & Technology Development Fund (STDF-CBG) "Development of Nano Photochemistry Lab. and its Environmental Applications "(2021-up to Now)
- Joint scientific project between Egypt and India, financed by Academy of Scientific Research and Technology "Production of new non-toxic photoluminescent nano-materials and their applications in energy and forensic fields" (2018-2019).
- Scientific project funded from Ain Shams University "Production of High Efficiency Dye Sensitized solar cells using new Environment safe nano-phosphors (2017-2018) "
- Scientific project funded from Ain Shams University "Production non-toxic nanomaterials for latent fingerprint detection"(2015-2016).
- Scientific project funded from Ain Shams University" Photo-Biogas Production from Wastewater (2014-2015) "
- Scientific project funded from RDI "e-laboratories for chemistry Education" No. RDI2/S2/106 (2014-2016).
- Joint scientific project between Egypt and Tunisia funded by Ministry of Scientific Research,

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“Production and application of high efficient luminescent nanomaterials for latent fingerprint detection No. 10/4/19“, (2012-2014).

- US – Egypt Scientific Research Project with Verginia Commonwealth University (2007 – 2009) – Towards efficient polymer solar cell: alignment of TiO<sub>2</sub> nanoparticles in polymer films – the nanowiring effect.
- Joint scientific project financed by the European Community; Aquacat project photodisinfection of water- in collaboration with international European [France, Swiss, Spain, UK and Portugal] and North African Laboratories (Fez and Tunis) (2003-2005).

## SKILLS

- **Experience in the handling the following lab facilities:**
  - Fabrication of dye sensitized and polymer solar cells
  - X-ray diffraction (XRD) Measurement and analysis
  - Transmission Electron Microscope (TEM)
  - Spin & Sputter coaters
  - Spectrophotomer
  - Spectrofluorometer
  - Diode Array spectrometer
  - Photoreactors and Light source measurements
  - Total Organic Carbon (TOC) analyzer
  - Chemical Oxygen Demand
  - TGA/DSC analysis

## SCIENTIFIC ACTIVITIES

**[A] Delivered lectures and leaded as well as designed the practical courses in the following training workshops:**

- ❖ Training Workshop on “Applications of Photoenergy Technologies”, Photoenergy Center, Ain Shams University, October 13-18, 2001
- ❖ Training Workshop on “Photoenergy Technology: Applications in the Environment Concepts and Hands-on Approach” Photoenergy Center, Ain Shams University, October 14-16, 2003.
- ❖ Training Workshop on “Photoenergy Technology: Solar Cells and Environmental Applications” Photoenergy Center, Ain Shams University, 25-26 February, 2004.
- ❖ Training Workshop on “Treatment and Recovery of Heavy Metals from water and Wastewater”, National Research Centre, Water Pollution Research Department, 16-20 July 2005.

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- ❖ Training Workshop on Nanotechnology, Photoenergy Centre, Ain Shams University, 23-25 November 2009.
- ❖ Training Workshop on “National Industries for Renewable Energy and Environmental Equipment” Faculty of science, Ain Shams University, **April 29-30, 2009.**
- ❖ Training Workshop on “Solar energy conversion and Photoenergy systems or clean Environment; Applications of green chemistry and Nanotechnology” Minofiya University, Sadat Branch , 4 - 5 April 2011
- ❖ Training Workshop on “The International Workshop on Environmental Nanotechnology and Advanced Optical Spectroscopic Applications” Minofiya University, Sadat Branch , 22 May 2013
- ❖ Training Workshop on “Application of Nanochemistry in Energy, water and environment development, Department of Chemistry, Faculty of Science, Ain Shams University, 14, April 2013.
- ❖ Training Workshop on “Nanotechnology applications in forensic science (latent fingerprint detection)” 21 May, 2013.
- ❖ 1<sup>st</sup> Workshop on Nanomaterials for Environmental and Biomedical applications, Faculty of Education, Ain Shams University, 30 December 2018.
- ❖ Workshop on Computational Chemistry in Education and Applied Photochemistry, Organized By Nano-Photochemistry, Solarchemistry and Computational Chemistry Labs, In collaboration with Department of Chemistry, Faculty of Science, Ain Shams University Cairo December 5th, 2019.
- ❖ Training Workshop “Development of nanotechnology concepts in the light of nanoscience concepts” for **STEM school students**, Institute of Environmental Studies and Research- Sadat City University 30-April 2024.

**[B] Attended Workshops:**

- ❖ Training Workshop on “Treatment and Recovery of Heavy Metals from water and Wastewater”, National Research Centre, Water Pollution Research Department,

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16-20 July 2005.

- ❖ Training Workshop on “Environmental Aspects and Production of Glass Ceramic Materials from Industrial and Urban Wastewater Sludge” Minofiya University, Sadat Branch, 12 January 2011.
- ❖ US-Egypt Solar Energy Workshop NRC, Cairo, Egypt, March **11-14, 2012**
- ❖ Training workshop on “Egyptian Standard Specifications for the analysis of commercial products”, Chemistry Administration, 27 November 2013.
- ❖ Training Workshop on Recent Trends in clean Environment” National Research Centre, Cairo, Egypt, May 3, 2017.
- ❖ Training Workshop “The joy of quantum chemical calculations and its applications, A brief practical Introduction”, Faculty of Science, Ain Shams University, 3 December 2024.

**[C] A member of the local organizing committee and attended the following international conferences:**

- ❖ 7<sup>th</sup> International Conference on “Solar Energy and applied Photochemistry” 23-28 February 2003, Luxor, Egypt: *”Medium effect on the photophysical properties of the intensely luminescent Terbium complex of pyridine-2,6-dicarboxylic acid“*, **poster presentation**
- ❖ 8<sup>th</sup> International Conference on “Solar Energy and Applied Photochemistry [SOLAR '05], 20-25 February 2005, Luxor, Egypt. *“Photochromism of spiropyran-derived merocyanine and its complexes with some lanthanide metal ions”* and *“Spectroscopic studies of some lanthanide complexes with triazole derivatives in PMMA and non-aqueous solutions”*, **poster presentations.**
- ❖ 9<sup>th</sup> International Conference on “Solar Energy and Applied Photochemistry [SOLAR '06], 23-27 January 2006, Cairo, Egypt. *“The preparation and characterization of Ln<sup>3+</sup> doped TiO<sub>2</sub> nanoparticles and their photocatalytic activity”*, **oral and poster presentations.**
- ❖ Nanotech insight Conference, 10-17<sup>th</sup> march, 2007, Luxor, Egypt., *“Production of nanomaterial containing rare-earth ions Tb, Eu and Sm:preparation, chracterization and application potential “*, **poster presentation.**

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- ❖ International Conference and Training Workshop on Molecular/Nano Phptochemistry, Photocatalysis and solar Energy conversion Solar'08, Cairo, Egypt, February 24-28, 2008.” Luminescncce *based on energy transfer in silica xerogels doped with lanthanide titanate pyrochlores ( $Gd_2Ti_2O_7: Ln^{3+}$ ) [ $Ln^{3+} = Eu^{3+}$  and  $Dy^{3+}$ ]*, **poster presentations.**
- ❖ International Conference and Training Workshop on Molecular/Nano Phptochemistry, Photocatalysis and solar Energy conversion Solar'08, Cairo, Egypt, February 24-28, 2008.” Dye-Sensitized Solar Cells based on  $Ln^{3+}$  Doped  $TiO_2$ , **oral presentations.**
- ❖ International Conference and Training Workshop on Powering a Greener Future: Nanomaterials and Solar Energy Conversion Solar'09 Luxor, Egypt, January 10 - 14, 2009. “One-dimensional single-crystalline  $TiO_2$  nanostructures: preparation, characterization and potential application” **poster presentations.**
- ❖ BioVision NXT conference 10-15<sup>th</sup> April **2010**, BA, Alexandria, Egypt. [**Poster presentation**].
- ❖ Solar Electricity Conference and Exhibition, SOLARTR-2, on November 7-9, 2012, Antalya-Turky, “Down-converting lanthanide doped  $TiO_2$  photoelectrodes for efficiency enhancement of dye-sensitized solar cells” **Poster presentation.**
- ❖ Second International Conference on “Research to Applications & Markets, Sousse, June 28-30, 2013, Tunisia,” Photobiogas and hydrogen generation based on lanthanide doped titania nanoparticles” **Oral presentation.**
- ❖ First International conference on Applied Chemistry (ICAC 2015 Chemistry for Sustainable World” Nov. 18-19 2015, Jeddah, Saudi Arabia, “. Novel non-toxic and red luminescent sensor based on  $Eu^{3+}:Y_2Ti_2O_7/SiO_2$  nano-powder for latent fingerprint detection” **Oral Presentation.**
- ❖ 8<sup>th</sup> Annual ASU Scientific Conference, Creativity, Innovation, Industry, 1-3 April 2019, Cairo, Egypt.
- ❖ Natural and Bascic Sciences and Their Applications Conferences (CHEM.III) Sponsored by the Chemistry Department, Faculty of Education, Ain Shams University, 16 September 2021, Cairo, Egypt.

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❖ 11<sup>th</sup> Annual Ain Shams University International conference, 10-11<sup>th</sup> May  
2023, Cairo, Egypt.

[D] Reviewer indifferent international journals such as:

- Applied Organometallic Chemistry
- Journal of Hazardous Materials
- Materials Letters
- Spectrochimica Acta Part A
- Journal of Power Sources
- International Journal of Photoenergy
- Material Science and Engineering B
- Journal of Molecular Structure
- Journal of Inorganic and Organometallic Polymers and Material
- Energy Conversion and Mangement
- ACS Applied Materials & Interfaces
- Chemical Engineering Journal
- Journal of Luminescence
- Journal of photochemistry and photobiology A: Chemistry
- Sensor and actuator B

#### LIST OF PUBLICATIONS

- Total Citations: **1518**
- *h* Index: 22
- *i10* index: 36

1. S.M. Tadros, M. El-Kinawy, R. Kamal, **M. Saif**, N. El-Faramawy, Synthesis and thermoluminescence characterization of Ba<sub>6</sub>Y<sub>2</sub>W<sub>3</sub>O<sub>18</sub> perovskite nanosensors for dosimetry, *Optical Materials*, 157 (2024) 116310.
2. E. Rashad, R. Foad, A. S. Mahmoud, Shebl, Magdy E. M. Abdelrhman, **M. Saif**, H. Hassan, Synthesis and Spectroscopic Characterization of Novel Fluorescent quinolinyl hydrazone for Latent Fingerprint and Anticounterfeiting Applications, *Egyptian Journal of Chemistry*, 67 (2024) 125 – 130.
3. M.K. Farhan, N.S. Ismail, M.H. Tamam, M.S. Abdel-Mottaleb, **M. Saif**, Exploiting ZnO nanoparticles as a modifier for carbon paste electrodes for determination of difloxacin HCl, *Journal of Solid State Electrochemistry*, 28 (2024), 33–48.

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4. H.A. Soliman, L.I. Ali, K.F. Khaled, H. Hafez, O.A. Mbrouk, **M. Saif**, M.M. Ibrahim, Eu<sup>3+</sup>:Y<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub> nanomaterials as efficient photocatalysts used for hydrogen and biogas production toward a sustainable environment, *Applied Organometallic Chemistry*, 37 (2023) e7280.
5. R. Fouad, **M. Saif**, M.M. Mashaly, M. Zekrallah, Synthesis and spectroscopic characterization of fluorescent 3-acetyl-4-hydroxy coumarin for biomedical and latent fingerprint applications, *Journal of Molecular Structure*, 1284 (2023) 135421.
6. M. Zekralla, **M. Saif**, Mahmoud M. Mashaly, R. Fouad, Centro-Symmetric Cu (AHC)<sub>2</sub> Complex as a Novel Antitumor Drug for Therapeutic Applications: Fabrication, Structure, DFT Calculation, Cytotoxicity, DNA Binding/Cleavage and Molecular Dockin, *Applied Organometallic Chemistry*, 37 (2023) e7003.
7. O. Mbrouk, M. Fawzy, H. M. El-Shafey, **M. Saif**, M. S. A. Abdel Mottaleb, H. Hafez, Viable production of hydrogen and methane from polluted water using eco-friendly plasmonic Pd–TiO<sub>2</sub> nanocomposites, *RSC Adv.*, 13 (2023) 770.
8. S.S. Shenouda, M. Shebl, H.S. Hafez, **M. Saif**, Optical and Electrical Characterization of 4,6-Diacetylresorcinol and 4,6-Bis(1-hydrazonoethyl)benzene-1,3-diol and Their Photo-Applications, *Acta Physica Polonica A*, 144 (2023) 128–133.
9. H.A. Soliman, M.M. Ibrahim, L.I. Ali, **M. Saif**, N.S. Abdelshafi, K.F. Khaled, Nano-Yttrium Titanate Coated 304 Stainless Steel: Preparation, Characterization and Corrosion Protection Application, *Moroccan Journal of Chemistry*, 11 (2023) 780 – 801.
10. S.S Shenouda; **M. Saif**, E. Baradács, B. Parditka, T. Fodor, Z. Erdélyi., Optimization of the structural and optical properties of ALD grown ZnO thin films for photocatalytic applications: thickness dependence, *Physica Scripta*, 98 (2023) 015826.
11. Z. Ghubish, R. Kamal; Hala R. Mahmoud, **M. Saif**, H. Hafez, M. El-Kemary, Photocatalytic activation of Ag-doped SrSnO<sub>3</sub> nanorods under visible light for reduction of p-nitrophenol and methylene blue mineralization, *Journal of Materials Science: Materials in Electronics*, 33 (2022) 24322–24339.
12. O.A. Mbrouk, M. Fawzy, H. M. Elshafey, **M. Saif**, H. Hafez, M. S. A. Abdel Mottaleb, Green synthesized plasmonic Pd–ZnO nanomaterials for visible light-induced photobiogas production from industrial wastewater, *Applied Organometallic Chemistry*, 2022;e6807.

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13. R. Kamal, **M. Saif**, Down-converting Luminescent  $\text{Eu}^{3+}$  doped  $\text{Ba}_6\text{Gd}_2\text{W}_3\text{O}_{18}$  Perovskite Nanosensor for  $\text{Cu}^{2+}$  ions in Drinking Water and Food Samples, Journal of Photochemistry and photobiology A: Chemistry, 429 (2022) 113939.
14. R. Helmy, G.A. El-Inany, H.S. Seleem, M.O. Abdel-Salam, T. Yoon, **M. Saif**, A Novel  $\text{Dy}^{3+}$  Modified  $\text{Zn}_2\text{Ti}_3\text{O}_8$  Nanoparticles for Efficient Hydrogen Production Photocatalysis, J. Alloy Compd. 907 (2022) 164487.
15. R. Fouad, M. Shebl, **M. Saif**, S. Gamal, Novel copper nano-complex based on tetraazamacrocyclic backbone: Template synthesis, structural elucidation, cytotoxic, DNA binding and molecular docking studies, Journal of Molecular Structure 1251(2022) 132021.
16. H.R. Mahmoud, **M. Saif**, M.A. Naghmash, Synthesis of M/BS@ Ag core-shell nanoparticles (M: Cu, Ni, Co, Fe or Mn ions and BS:  $\text{Bi}_{12}\text{SiO}_{20}$ ) as novel catalysts for the catalytic decomposition of hydrogen peroxide, Journal of Physics and Chemistry of Solids 161 (2022) 110389.
17. N. Ibrahim, H. Latif, M. **M. Saif**, A. Mogazy, Impact of Different Crystal Sizes of Nano-Iron Oxide as Fertilizer on Wheat Plants Photosynthetic Pigments Content. Egyptian Journal of Chemistry, 64 (8) (2021) 4635-4639.
18. M.A. Naghmash, **M. Saif**, H.R. Mahmoud, Transition metal ions doped  $\text{Bi}_{12}\text{SiO}_{20}$  as novel catalysts for the decomposition of hydrogen peroxide ( $\text{H}_2\text{O}_2$ ), Journal of the Taiwan Institute of Chemical Engineers 121 (2021) 268-275.
19. Z. Ghubish, R. Kamal, H.R. Mahmoud, **M. Saif**, H. Hafez, M. El-Kemary, Novel fluorescent nano-sensor based on amino-functionalization of  $\text{Eu}^{3+}$ :  $\text{SrSnO}_3$  for copper ion detection in food and real drink water samples, RSC Advances 11 (30) (2021) 18552-18564.
20. R. Fouad, **M. Saif**, Synthesis, spectroscopic and photoluminescence studies of novel  $\text{Eu}^{3+}$  nanophosphor complex as fluorescent sensor for highly sensitive detection of latent fingerprints and anti-counterfeiting, Journal of molecular structure, 1217 (2020), Article 128472.
21. Z. Ghubish, **M. Saif**, H. Hafez, H. Mahmoud, R. Kamal, M. El-Kemary, Novel red photoluminescence sensor based on Europium ion doped calcium hydroxyl stannate  $\text{CaSn}(\text{OH})_6:\text{Eu}^{3+}$  for latent fingerprint detection, Journal of molecular Structure, 12707 (2020) 127840.

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22. M.Sh. Gohr, H.S. Hafez, **M.M. Saif**, H.M.A. Soliman, M.S.A. Abdel-Mottaleb, Facile hydrothermal synthesis of Sm and Eu doped TiO<sub>2</sub>/graphene oxide nanocomposites for photocatalytic applications, Egyptian Journal of Chemistry, 63(4) (2020) 1359-1382.
23. R. Kamal, **M. Saif**, Barium tungstate doped with terbium ion green nanophosphor: Low temperature preparation, characterization and potential applications, Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 229 (2020) 117928.
24. H.M. El-Shafey, **M. Saif**, M.H. Aly, H.S. Hafez, Enhancing the photo and biomedical activity of ZnO by incorporation with Zinc Silicate Nanocomposites, Applied Organometallic Chemistry, (2020) 34 (11), e5902.
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