

Curriculum Vitae

Tharwat Hassan Mohammed Mansoure

Assistant Professor at Chemistry Department, Faculty of Science, Assiut University, 71516, Assiut, Egypt,

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Research Interests:

Fuel Cells, Supercapacitors, Electrocatalysis, Conducting Polymers, Single-Atom Catalysts, Metal Organic Frameworks (MOFs), Covalent Organic Frameworks (COFs), Sensors.

Education:

- **Ph.D. in Chemistry (Surface and Electrocatalysis), Chemistry Department, National Taiwan University, Taiwan, 2020.**
- **Master in Chemistry (Surface and Catalysis), Faculty of Science, Assiut University, Egypt, 2013.**
- **B.Sc. Chemistry, Assiut University, Egypt, July 2007.**

Employment History:

- **Assistant Professor, Dept. of Chemistry, Assiut University April 2020 – to date.**
- **Graduate Research Assistant, Institute of Chemistry, Academia Sinica, Taiwan April 2013 – to April 2020.**
- **Demonstrator, Dept. of Chemistry, Assiut University April 2009 – to April 2013.**
- **Chemist, El-borg laboratory, Central lab April 2008 – to April 2009.**

Research – Relevant Experience:

- **Preparation of nano-crystalline Co_3O_4 for catalytic decomposition of N_2O and H_2O_2 using Combustion, Hydrothermal, Co-precipitation, and Micro-emulsion methods.**

- Synthesis nano-materials for Electrochemical Oxygen Reduction Reaction (ORR), Oxygen Evolution Reaction (OER), Hydrogen Evolution Reaction (HER), and Supercapacitors.

Publications and Presentations:

A) List of Publications:-

1. **Tharwat Hassan Mansoure, Yuan-Chung Cheng, Hsiao-hua Yu, *Pt-Ni Nanoparticles as Electrocatalysts for Oxygen Reduction Reaction: Linking Nano Structure to Electrocatalytic Performance (In Progress)***
2. **Mohamed Hammad Elsayed, Jayachandran Jayakumar, Mohamed Abdellah, Tharwat Hassan Mansoure, Kaibo Zheng, Chih-Li Chang, Li-Yu Ting, Wei-Cheng Lin, Ahmed M. Elewa, Hsiao-hua Yu, Wen-Hsin Wang, Chih-Chia Chung, Ho-Hsiu Chou, *Visible-Light-Driven Hydrogen Evolution using Nitrogen-Doped Carbon Quantum Dot-Implanted Polymer Dots as Metal-Free Photocatalysts (Under Review)***
3. **Mohamed Gamal Mohamed, Xian Zhang, Tharwat Hassan Mansoure, Ahmed F. M. EL-Mahdy, Chih-Feng Huang, Martin Danko, Zhong Xin, Shiao-Wei Kuo, *Hypercrosslinked porous organic polymers based on tetraphenylanthraquinone for CO₂ uptake and high-performance supercapacitor*, *Polymer* 205 (2020) 122857.**
4. **Tharwat Hassan Mansoure, Hailemichael Ayalew, Wei-Lun Kao, Jing-Jong Shyue, Shyh-Chyang Luo, Yuan-Chung Cheng, Hsiao-hua Yu, *Perfluoro-Functionalized Conducting Polymers Enhance Electrocatalytic Oxygen Reduction*, *ACS Appl. Energy Mater.* 3 (2020) 1171-1180.**
5. **Ahmed F. M. EL-Mahdy, Mohamed Gamal Mohamed, Tharwat Hassan Mansoure, Hsiao-Hua Yu, Tao Chen, Shiao-Wei Kuo, *Ultrastable tetraphenyl-p-phenylenediaminebased covalent organic frameworks as platforms for high-performance electrochemical supercapacitors*, *Chem. Commun.* 55 (2019) 14890.**
6. **Ahmed F.M. EL-Mahdy, Ying-Hui Hung, Tharwat Hassan Mansoure, Hsiao-Hua Yu, Yu-Shen Hsu, Kevin C.W. Wu, Shiao-Wei Kuo, *Synthesis of [3 + 3] β -ketoenamine-tethered covalent organic frameworks (COFs) for high-performance supercapacitance and CO₂ storage*, *J Taiwan Inst Chem E* 103 (2019) 199–208.**
7. **Ahmed F. M. El-Mahdy, Ying-Hui Hung, Tharwat Hassan Mansoure, Hsiao-Hua Yu, Tao Chen, Shiao-Wei Kuo, *A Hollow Microtubular Triazine-and Benzobisoxazole-Based Covalent Organic Framework Presenting Sponge-Like Shells That Functions as a High-Performance Supercapacitor*, *Chem. Asian J.* 14 (2019) 1429–1435.**

8. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure, S. A. Ibrahim**, *Nano-Crystalline Co_3O_4 Spinel Prepared by Combustion Method as a Catalyst for Direct Decomposition of N_2O* , **Res Rev J Chem** Vol. 4. No. 4 (2015) 14–25.
9. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure**, *Effect of Fuel/Oxidizer ratio and the Calcination Temperature on the Preparation of microporous-nanostructured tricobalt tetraoxide*, **Adv. Powder Technol.** 25 (2014) 560-566.
10. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure**, *Nano-crystalline Co_3O_4 Fabricated via the Combustion Method*, **Met. Mater. Int.** 19 (2013) 489- 495.
11. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure**, *Effect of Calcination Temperature on Catalytic activity of nano-crystalline Co_3O_4 Prepared by Combustion Method*, **Appl. Surf. Sci.** 275 (2013) 45-52.
12. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure**, *Direct Fabrication of Cobalt Oxide Nano-particles Employing Glycine as a Combustion Fuel*, **Physical Chemistry**, Vol. 2 No. 6, 2012, pp. 86-93. doi: 10.5923/j.pc.20120206.01.
13. **M.Th. Makhlouf, B.M. Abu-Zied, Tharwat Hassan Mansoure**, *Direct Fabrication of Cobalt Oxide Nanoparticles Employing Sucrose as a Combustion Fuel*, **Journal of Nanoparticles**, Vol. 2013, ID. 384350 (<http://dx.doi.org/10.1155/2013/384350>)

B) Lists of Conferences Presentations and Posters:

1. **Tharwat Hassan Mansoure, Ahmed El-Mahdy, Shiao-Wei Kuo, Yuan-Chung Cheng, Hsiao-hua Yu**, **Pt–Ni-Modified Triazine- and Benzobisoxazole-Based Covalent Organic Framework as an Efficient Oxygen Reduction Electrocatalyst**, *Postgraduate Poster Exhibition, Department of Chemistry, National Taiwan University, June, 2020, Taiwan.*
2. **Tharwat Hassan Mansoure, Ahmed El-Mahdy, Shiao-Wei Kuo, Yuan-Chung Cheng, Hsiao-hua Yu**, **Electrocatalytic Performance of Platinum Nickel Alloy and Covalent Organic Frameworks for Oxygen Reduction Reaction and Supercapacitors**, *Postgraduate Poster Session, Institute of Physics, Academia Sinica, September, 2019, Taiwan.*
3. **Tharwat Hassan Mansoure, Wei-Lun Kao, Jing-Jong Shyue, Shyh-Chyang Luo, Yuan-Chung Cheng, Hsiao-hua Yu**, **Spinel Co_3O_4 /PEDOT Nanocomposites as Bifunctional Electrocatalysts for the Oxygen Reduction Reaction: Synergistic Effect of Perfluorocarbon Groups and Nanostructured Co_3O_4** , *Postgraduate Poster Session, Institute of Physics, Academia Sinica, May, 2017, Taiwan.*

4. Tharwat Hassan Mansoure, M.Th. Makhlof, B.M. Abu-Zied, Rapid Preparation, Characterization and Catalytic Decomposition of N₂O Over Pure and Alkali-doped Co₃O₄/MCM-41 Nano-Composites, *International Conference of Nanotek and Expo*, December 2012, Philadelphia, USA.
5. M.Th. Makhlof, B.M. Abu-Zied, Tharwat Hassan Mansoure, Direct fabrication of cobalt oxide nano-particles employing glycine as a combustion fuel, *International conference of Nanotechnology, Biotechnology and spectroscopy (ICNBS Egypt 2012)*, March, 2012, Cairo, Egypt.
6. M.Th. Makhlof, B.M. Abu-Zied, Tharwat Hassan Mansoure, Effect of calcinations temperature on catalytic activity of nano-crystalline Co₃O₄ prepared by combustion method, *International Congress of Young Chemists "YoungChem2011"*, October, 2011, Cracow, Poland.
7. M.Th. Makhlof, B.M. Abu-Zied, Tharwat Hassan Mansoure, Preparation of Nano-crystalline Co₃O₄, *Young Researchers Conference for Basic Science and Technology*, April, 2011, Assiut University, Assiut, Egypt.

Training & Internship:

- "Think of Deepening Self-employment", Assiut University with cooperation of Social Fund for Development from October 2005 to April 2006.
- National Cement Company, Helwan, Egypt from 2-23 July 2006 (I Gravimetric).
- Iron and Steel Company, Egypt from 6 August to 6 September 2006.
- Technical Centre for Scientific equipment and training in "The Safety and Laboratory Safty" from 27-28 June 2009.
- Course in German language in "Assiut University" from Oct. 4 to Dec. 31, 2009.
- English course in American Institute for Training & Education during 2009.
- "Nanoscience and Nanotechnology" held from 5th to 7th April 2011, at Nanoscience and Nanotechnology unit, Beni-Suef University.
- "MATLAB Training Course" held from 6th to 29th May 2012, at High Availability Super Computer Center, Assiut University.

Honors and Awards:

- **The Best Master Thesis Prize in Chemistry, Assiut University, 2015.**
- **Prof. Mohamed Rafat Mahmoud Prize in Chemistry, Assiut University, 2014.**
- **Graduated with Very Good and honors, Assiut University, 2007.**
- **Scientific Distinction, Assiut University 2005.**