

CURRICULUM VITAE

Full Name : Waleed Mohamed Ali Mohamed El Rouby
Current affiliation : Innovation program Manager, Innovation team, Elogen, France.
Previous Affiliation : Professor of Materials science and Nanotechnology, Faculty of Postgraduate Studies for Advanced Sciences, Beni-Suef University, Beni-Suef, Egypt
Field of specialization: Materials science and Nanotechnology (Catalysis, electro-catalysis, Photo-electrolysis and water electrolysis)



PERSONAL INFORMATION

Place of birth : Beni-Suef, Egypt
Date of Birth : 5/11/1983.
Nationality : Egyptian
Social Status : Married

CONTACT INFORMATION

Address : Faculty of Postgraduate Studies for Advanced Sciences, Beni-Suef University, Beni-Suef, Egypt.

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PROFILE

- **January 2022- Present:** Innovation Program Manager, Innovation team, Elogen, France.
- **March 2024 – Present:** Professor of Materials Science and Nanotechnology at Faculty of Postgraduate Studies for Advanced Science, Beni-Suef University. (**In leave**)
- **August 2019 – December 2021:** Head of Materials Science and Nanotechnology Department at Faculty of Postgraduate Studies for Advanced Science, Beni-Suef University.
- **February 2019 – February 2024:** Associate Professor of Materials Science and Nanotechnology at Faculty of Postgraduate Studies for Advanced Science, Beni-Suef University.
- **December 2017-July 2019:** Postdoc at Institut de Chimie Moléculaire et des Matériaux d'Orsay Recherche et Innovation en Electrochimie pour l'Energie, Université Paris-Sud, Paris, France.
- **September 2015-March 2016:** postdoc at Team NanoTech (TNT), Vigo University, Spain

- **September 2013 – January 2019:** Assistant Professor at Faculty of Postgraduate Studies for Advanced Science, Beni-Suef University.
- **October 2008- November 2011:** PhD scholarship at Faculty of Science, Beni-Suef University and worked as teaching assistant (Teaching the practical courses for undergraduate students).
- **September 2007- September 2008:** Master student at Faculty of Science, Beni-Suef University
- **October 2004- May 2005:** Pre-master student at Beni-Suef University.

Education Qualifications

- **PhD**, Physical Chemistry (Nano-Science) entitled: " **Synthesis, Development and Decoration of Muti-Walled Carbon Nanotubes (MWCNTs) for Highly Efficient Practical Applications**" Beni-Suef University-Egypt-November **2011**
- **M.Sc.**, Physical Chemistry (Nano-Science) entitled: "**Preparation and Characterization of CuFe₂O₄/MgFe₂O₄ Core-Shell Nanoparticles.**" Beni-Suef University-Egypt- May **2008**
- **Pre-master** studies in physical, analytical and inorganic chemistry – Beni-Suef University-Egypt- November **2005**.
- **Bachelor** degree of Science-Chemistry - Cairo University- Beni-Suef branch - Egypt-May **2004**. Accumulative grade (B.Sc) "Very good" (**80, 98%**).

Awards/Fellowships

- Egyptian state prize "Advanced technological sciences", 2021.
- Prof. Fawzy Hamad prize in Material Science and Technology, 2019 (Individual Prizes, Academy of Scientific research and Technology, Egypt).
- Top 2% worldwide scientists in the field of Materials science for Energy according to the database of Stanford University for the years 2020, 2021, 2022, 2023.
- Publon peer review award 2018 as one of the best 1% reviewers in Materials Science.
- Publon peer review award 2019 as one of the best 1% reviewers in Materials Science.
- French institute in Egypt (IFE) & Science and Technology Development Fund (STDF) Postdoctoral Fellowship in France 2017.
- Erasmus Mundus postdoctoral fellowship in Spain 2015.
- PhD scholarship (2008 – 2011) at Beni-Suef University, Egypt.

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- Royal Society of Chemistry (RSC)
- Egyptian Young Academy of Science (EYAS)
- Egyptian National Nanotechnology Network (ENNN)
- Arabic science and technology foundation
- Bentham Science publishers as an ambassador
- Scientific Academy, Natural Sciences Publishing (NSP)
- African Scientists directory

LEADERSHIP POSITIONS

- **January 2022- present:** Innovation Program Manager, Innovation team, Elogen, France.

- **August 2019 - December 2021:** Head of Materials Science and Nanotechnology Department at Faculty of Postgraduate Studies for Advanced Science, Beni-Suef University.
- **August 2019- December 2021:** Co-Chair of international publishing unit, Beni-Suef University, Egypt
- **September 2016-November 2017:** Co-Chair of international ranking unit, Beni-Suef University, Egypt

MSC AND PHD STUDENTS SUPERVISION

Total number of student supervisions are 25 (MSc and PhD):

- 10 PhD Students
- 15 MSc Students

LANGUAGES:

Languages	Arabic " Mother's tongue"	English " Foreign language"	French " Foreign language"
Typing Skills, Speaking, Writing and Reading	Excellent	Very good	B1

REVIEWING FOR JOURNALS

- Recognized reviewer for more than 35 journals specialized in materials science, nanotechnology and energy.
- The following link contains all information about my reviewing records (about 150 manuscript) and a list of the journals

<https://publons.com/researcher/1558914/waleed-m-a-el-rouby/>

CONFERENCES & WORKSHOPS

Participated in:

1. 1st International Conference on Material Science and Nanotechnology "Future Challenges" December 2-4, **2007** - National Research Center – Cairo – Egypt.
2. 1st Conference for postgraduate students, Beni-Suif University - Faculty of Science 22-23 June, **2009**.
3. Us-Egypt Advanced Studies Institute "Nanomaterials & Nanocatalysis for Energy, Petrochemicals and Environmental Applications" March 28 – April 4, **2010** - National Research Center – Cairo – Egypt.
4. "First International Conference on Nanotechnology for Society Development "4-5 May **2010** - Cairo – Egypt.
5. One Day Seminar On " Nanotechnology for Society Development " 15 October **2010**, HBRC, Egypt
6. One Day Seminar On " Nanoscience and Nanotechnology " 8 December **2010**, Beni-Suef, Egypt
7. One Day Seminar On " Application of Synchrotron Radiation in Structure Determination from Powder Data " 18 January **2011**, Giza, Egypt
8. Forth International Conference on Nano-Technology in Construction (NTC 2012) "Nano-Technology for Green and Sustainable construction "25- 26 March **2012**, Cairo – Egypt.
9. 1st International Conference on Advanced basic & applied Sciences (ABAS) Including Egyptian-Sweden Workshop, Hurghada, Egypt, 6-9 Nov. **2012**

10. 11th International Conference on Chemistry and its Role in Development, Sharm El-Sheikh, Egypt, 11-15 March **2013**
11. 2nd International Conference on Advanced Basic & Applied Sciences (ABAS), Soukhna, Egypt, 2-4 Apr. **2014**
12. International workshop "Prospects of Nanocrystals Basics and Application" Kafrelsheikh University, Egypt, 25-26 Nov. 2014
13. 12th International Conference on Chemistry and its Role in Development, Sharm El-Sheikh, Egypt, 16-20 March 2015
14. 13th International Conference on Chemistry and its Role in Development, Sharm El-Sheikh, Egypt, 20-24 March 2017
15. 4th International Conference on Advanced Sciences (ICAS4), Hurghada, Egypt, 7-10 Nov. **2017**
16. International conference on Materials and Nanomaterials 2019 (M&Ns-19), Paris, France, 17th-19th July **2019**.
17. 5th International Conference on Advanced Sciences (ICAS4), Hurghada, Egypt, 9-11 Nov. **2019**
18. Chemical Inventory Management & Waste Minimization Workshop, 18-20 February **2020**, Giza, Egypt.
19. Research Communication: Promoting Research in the Digital Age; 27th of May **2021**
20. The 8th international scientific forum; As a keynote speaker within the scientific symposium (Quality standards in Arab periodicals and their international classifications), 15th -20th Jun **2021**.
21. National workshop on "Towards an Interdisciplinary Science", 14th July **2021**.
22. Global Virtual Summit on Carbon, Graphene, 0D, 1D, and 2D materials, JULY 22-23, **2021**
23. 15th International Conference on Chemistry and its Role in Development, Hurghada, Egypt, 9-13 August **2021**
24. The 3rd International Conference on Hydrogen & Fuel Cell Technologies (ICHFCT'21), 29 - 31 October, **2021**, NIS, Egypt
25. 3rd International MOMENTOM Congress: Energy at the Crossroads - 08-10 mars **2023**

I was selected to be one of the organization committee and trainer in:

1. Nanotech training course, 28 Feb. – 3 March – **2010**, Beni-Suef University - Egypt
2. "First International Conference on Nanotechnology for Society Development "4-5 May **2010** - Cairo – Egypt.
3. Nanotechnology training course, 8-11 April – **2011**, Beni-Suef University - Egypt
4. Nanotechnology training course, 9-13 April – **2012**, Beni-Suef University - Egypt
5. 1st International Conference on Advanced basic & applied Sciences (ABAS) Including Egyptian-Sweden Workshop, Hurghada, Egypt, 6-9 Nov. **2012**
6. Training course in nanotechnology 16-18 April **2013**
7. One-day seminar about nanotechnology 27 February **2013**
8. 2nd International Conference on Advanced Basic & Applied Sciences (ABAS) Soukhna, Egypt, 2-4 Apr. **2014**
9. Nanobiotechnology Training course 3-5 March **2015**
10. 3rd International Conference on Advanced Applied Sciences (ICAAS-III), Hurghada, Egypt, 17-20 Nov. **2015**
11. 4th International Conference on Advanced Sciences (ICAS4), Hurghada, Egypt, 7-10 Nov. **2017**

INTERNATIONAL TRAINING COURSES

I attended the following international training courses:

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| 1. Understanding FT-IR/OPUS Basics Functionality. | Germany, October 21 st , 2013 |
| 2. Advanced OPUS Functionality for Mid IR Applications. | Germany, October 22 nd , 2013 |
| 3. Sample preparation and surface analysis | Germany, October 23 rd , 2013 |
| 4. FT-IR microscopy | Germany, October 24 th , 2013 |
| 5. Dispersive and FT-Raman spectroscopy | Germany, October 25 th , 2013 |
| 6. Basic XRD course | Netherlands, March 23 -28, 2014 |
| 7. Training on how to operate on TEM | Vigo university, Spain, 2015 |
| 8. Extensive training on Zeiss sigma 500 VP SEM | 2021 |

ACADEMIC TEACHING

I have taught the following courses at Beni-Suef University

Postgraduate students:

- Materials Science
- Advanced materials Science
- Applied physical chemistry
- Advanced physical chemistry
- Instrumental analysis
- Environmental application of nanomaterials
- Nanotubes production to application
- Materials Preparation and characterization
- Fundamentals of Nanoscience

Undergraduate students:

- Nanoscience 1 (Faculty of Applied Arts, 3rd year)
- Nanoscience 2 (Faculty of Applied Arts, 4th year)
- Nanotechnology (Faculty of Earth Science, 3rd year)

PROJECTS:

No	Project title	Funding Agency	Role	Status
1	Plasma-Assisted Chemical Vapor Synthesis versus Conventional Synthesis Methods of Advanced Ceramic Nano-powders 2013	STDF-NSF (Egypt-US cooperation project)	Research team member	Finished
2	Chemical Routes to Nanostructured Materials for Solar Cell Applications, 2016	ASRT-NRF (Egypt-South Africa collaboration project)	PI of the Project	Finished
3	Nanocomposites, a novel approach to optimize, purify and enhance the antibacterial activity of a potent bacteriocin (Enterocin OS13), 2014	Beni-Suef University	PI of the Project	Finished
4	Enhanced recovery and valorization of algal-bacterial biomass from	STDF	PI of the Project	Finished

	wastewater treatment plants using layered double hydroxide nanoparticles, 2015			
5	Doped TiO ₂ /graphene nano composites for high H ₂ production from waste water, 2015	STDF	CO-PI of the project	Finished
6	Formulation and Evaluation of Topical Formulations Containing U.V. Shielding Nano-Metallic components, 2016	Beni-Suef University	Co-PI if the project	Finished
7	Synthesis of innovative hollow fibers polymer nanocomposite for selective removal of arsenic from drinking and ground water, 2016	STDF	Co-PI if the project	Finished
8	TiO ₂ @MOF derivatives as an efficient photoelectrode for water splitting, 2017	STDF-French institute in Egypt	PI of the project	Finished
9	Erasmus plus mobility project with Vigo University, Spain, 2017-2019	European Union	Coordinator of the project	Finished
10	center of excellence for Production of nanomaterials, 2019	STDF	Team member in the project	Finished
11	Construction of novel Nanocomposites with enhanced photocatalytic properties for photoelectrochemical (PEC) water splitting, 2019	STDF	PI of the Project	Finished
12	Pure and doped perovskite nanocomposites for energy applications (Methanol oxidation and water splitting)	ASRT and Campus France	PI of the project	Finished
13	Improvement the laboratories facilities at Faculty of Postgraduate Studies for Advanced Sciences – Beni-Suef University	ASRT	Co-PI	Finished
14	2D and 3D Metal Organic Frameworks derived embedded reduced graphene oxide for Supercapacitors Applications	ASRT	Co-PI	Finished
15	Erasmus plus mobility project with Vigo University, Spain, 2019-2021	European Union	Coordinator of the project	Finished
16	Erasmus plus mobility project with Paris saclay University, France, 2020-2023	European Union	Coordinator of the project	Finished
17	Molybdenum and Tungsten based nanomaterials for direct methanol fuel cells	STDF (Postgraduate projects)	Supervisor	Finished
18	Nano-sized Metal Oxide Impregnated Carbon Materials for Supercapacitors Applications	STDF (Postgraduate projects)	Supervisor	Finished
19	Multifunctional perovskite nanomaterials for photoelectrochemical and electrochemical water splitting	STDF (Postgraduate projects)	Supervisor	Finished
20	Preparation of Modified Carbon nanomaterials for Supercapacitor Applications	STDF (Postgraduate projects)	Supervisor	Finished

PATENTS

Approved patents:

- Ultrafast and Scalable Purification of Graphene Oxide Colloid and Miscellaneous Colloids Using a Novel Setup Including hollow fibers dialyzer, **491/2017 (Egyptian Patent Office)**

LIST OF PUBLICATIONS

Book chapters

1. M. H. Elbakkay and **Waleed M. A. El Rouby**, in Nanoscience Volume 9, ed. N. Revaprasadu and M. D. Khan, Royal Society of Chemistry, 2023, vol. 9, pp. 199-231.
2. N. Elgiddawy, H. A. El-Raheem, S. Hussein, and **Waleed M. A. El Rouby**, in Graphene-based Nanocomposite Sensors Detection to Diagnosis, ed. S. K. Swain and S. Patra, Royal Society of Chemistry, 2023, vol. 60, ch. 15, pp. 427-456.
3. Samah Hussein, Nada El Giddawy, Gharieb El Sayyad and **Waleed MA El Rouby**. "Recent Advances in Microbial Biodegradation" In *Handbook of Biodegradable Materials*, Pages 111 – 136, Springer 2023. DOI: 10.1007/978-3-031-09710-2_3
4. Mai Abdelgawad, M. Abd Elkodous and **Waleed MA El Rouby**. "Biodegradable Polymers in Biomedical Applications: A Focus on Skin and Bone Regeneration" In *Handbook of Biodegradable Materials*, Pages 1015 - 1043, Springer 2023. DOI: 10.1007/978-3-031-09710-2_45
5. Abdelrahman Zkria, Ali M. Ali, Imtenan Mahmoud, Abdalla Abdelwahab, **Waleed El Rouby**, and Tsuyoshi Yoshitake. "Nanodiamond/Conducting Polymer Nanocomposites for Supercapacitor Applications." In *Advances in Nanocomposite Materials for Environmental and Energy Harvesting Applications*, pp. 1017-1045. Springer, Cham, **2022**.
6. **Waleed MA El Rouby**, Ahmed Esmail A. Aboubakr, Sheng-Mu You, and Pierre Millet. "Role of photosensitizers in enhancing the performance of nanocrystalline TiO₂ for photoelectrochemical water splitting." In *Nanoscience*, pp. 181-212. **2021**.
7. A.H. Zaki, **W.M.A. El Rouby**, Selective Photodegradation Using Titanate Nanostructures, in: Photocatal. Attrib., IntechOpen, **2019**. doi:10.5772/intechopen.80311.

Published papers

8. Mamdouh, Nahla, Ahmed A. Farghali, **Waleed MA El Rouby**, and Abdalla Abdelwahab. "Effect of ZIF-67-derived Co₃O₄ on the activity of CNTs/NiCo₂O₄ nanocomposite for methanol oxidation reaction." *International Journal of Hydrogen Energy* 93 (**2024**): 878-887.
9. Elnagar, Noha, Nada Elgiddawy, **Waleed MA El Rouby**, Ahmed A. Farghali, and Hafsa Korri-Yousoufi. "Poly (3-Hexylthiophene) Based Bioelectronic Interface Using Conducting Nanofibers (CNFs) for the Sensitive Determination of Folate Receptor Cancer Biomarkers in Human Plasma." *Analytical Letters* (**2024**): 1-23.
10. Millet, Pierre, Joumada Al Cheikh, Serge Albacha, Ali Abdel Motagali, and **Waleed El Rouby**. "Comparison of Catalyst-Coated Electrodes vs. Catalyst-Coated Membranes in PEM Water Electrolysis Cells." In *Electrochemical Society Meeting Abstracts* 245, no. 34, pp. 1742-1742. The Electrochemical Society, Inc., **2024**.

11. Kotp, Amna A., Abdalla Abdelwahab, Ahmed A. Farghali, **Waleed MA El Roubly**, and Abeer Enaïet Allah. "Ornated hydrangea-like M-MO/graphitic porous carbon derived via direct carbonization of MOFs for electrooxidation of methanol in alkaline DMFC." *Diamond and Related Materials* 145 (2024): 111119.
12. Helmy, Abdelrahman M., Asmaa A. Hamed, Ahmed A. Abdelghany, Sara Mohamed Naguib Abdel Hafez, **Waleed MA El Roubly**, and Usama F. Aly. "Rosuvastatin-laden nanofibrous patches for effective treatment of corneal ulcer in experimental animals." *Journal of Drug Delivery Science and Technology* 94 (2024): 105529.
13. Polyakov, Alexander Yu, Serge Al Bacha, **Waleed MA El Roubly**, Battulga Munkhbat, Loïc Assaud, Pierre Millet, Björn Wickman, and Timur O. Shegai. "Top-down nanostructured multilayer MoS₂ with atomically sharp edges for electrochemical hydrogen evolution reaction." *Materials Today Nano* 25 (2024): 100467.
14. Elnagar, Noha, Nada Elgiddawy, **Waleed MA El Roubly**, Ahmed A. Farghali, and Hafsa Korri-Yousseoufi. "Impedimetric Detection of Cancer Markers Based on Nanofiber Copolymers." *Biosensors* 14, no. 2 (2024): 77.
15. Abdel-Motagali, Ali, Serge Al Bacha, **Waleed MA El Roubly**, Janick Bigarré, and Pierre Millet. "Evaluating the performance of hybrid proton exchange membrane for PEM water electrolysis." *International Journal of Hydrogen Energy* 49 (2024): 87-102.
16. ElSayed, Nada Gamal, Ahmed A. Farghali, **Waleed MA El Roubly**, and Mai FM Hmamm. "Silver decorated nickel oxide nanoflake/carbon nanotube nanocomposite as an efficient electrocatalyst for ethanol oxidation." *Nanoscale Advances* (2024). <https://doi.org/10.1039/D4NA00549J>
17. Imtenan Mahmoud, Ahmed A. Farghali, **Waleed MA El-Roubly**, and Abdalla Abdelwahab. "Nickel and cobalt-based tungstate nanocomposites as promising electrocatalysts in alkaline direct methanol fuel cells." *Nanoscale Advances* 6, no. 8 (2024): 2059-2074.
18. Shokry, R., D. Aman, H. M. Abd El Salam, S. Mikhail, T. Zaki, **Waleed M. A. El Roubly**, A. A. Farghali, W. Al Zoubi, and Y. G. Ko. "Linker regulation of CoO@ Cu/C derived from self-assembly of MOF to enhance catalytic activity of organic contaminants." *Materials Today Nano* 25 (2024): 100444.
19. Hossam MS Nabawi, Ahmed Z. Abdelazem, **Waleed MA El Roubly**, and Ahmed AG El-Shahawy. "A potent formula against triple-negative breast cancer—sorafenib-carbon nanotubes-folic acid: Targeting, apoptosis triggering, and bioavailability enhancing." *Biotechnology and Applied Biochemistry* (2024). <https://doi.org/10.1002/bab.2649>
20. Shokry, R., D. Aman, H. M. Abd El Salam, S. Mikhail, T. Zaki, **W. M. A. El Roubly**, A. A. Farghali, W. Al Zoubi, and Y. G. Ko. "Linker regulation of Cu/C@ CoO derived from self-assembly of MOF to enhance catalytic activity of organic contaminants." *Materials Today Nano* (2023): 100444.
21. Amna A. Kotp, Abdalla Abdelwahab, Ahmed A. Farghali, **Waleed MA El Roubly**, and Abeer Enaïet Allah. "Evaluating the electrocatalytic activity of flower-like Co-MOF/CNT nanocomposites for methanol oxidation in basic electrolytes." *RSC advances* 13, no. 40 (2023): 27934-27945.
22. Gharieb S. El-Sayyad, M. Abd Elkodous, Hanan S. El-Bastawisy, and **Waleed MA El Roubly**. "Potential antibacterial, antibiofilm, and photocatalytic performance of gamma-irradiated novel nanocomposite for enhanced disinfection applications with an investigated reaction mechanism." *BMC microbiology* 23, no. 1 (2023): 270.
23. Abdel-wahab, Mohamed Sh, Hadeer K. El Emam, and **Waleed MA El Roubly**. "Sputtered Ag-doped NiO thin films: structural, optical, and electrocatalytic activity toward methanol oxidation." *Journal of Materials Science: Materials in Electronics* 34, no. 22 (2023): 1637.
24. Eid, Dina S., M. H. Khedr, **Waleed MA El Roubly**, and Abdalla Abdelwahab. "Layered SnSe Functionalized Carbon Composite as High-Performance Supercapacitor Electrode." *Materials Research Bulletin* (2023): 112456.

25. Mohamed, Shaimaa K., Amany MA Bashat, Hassan MA Hassan, Nahla Ismail, and **Waleed MA El Rouby**. "Optimizing the performance of $\text{Au}_y/\text{Ni}_x/\text{TiO}_2$ NTs photoanodes for photoelectrochemical water splitting." *RSC advances* 13, no. 20 (2023): 14018-14032.
26. Fytory, Mostafa, Amira Mansour, **Waleed MA El Rouby**, Ahmed A. Farghali, Xiaorong Zhang, Frank Bier, Mahmoud Abdel-Hafiez, and Ibrahim M. El-Sherbiny. "Core–Shell Nanostructured Drug Delivery Platform Based on Biocompatible Metal–Organic Framework-Ligated Polyethyleneimine for Targeted Hepatocellular Carcinoma Therapy." *ACS omega* 23(2023), 20779–20791.
27. El Emam, Hadeer K., Abdalla Abdelwahab, S. I. El-Dek, and **Waleed MA El Rouby**. "Performance of Ni-doped BaTiO_3 hollow porous spheres supported reduced graphene oxide as an efficient bifunctional electrocatalyst for oxygen evolution reaction and oxygen reduction reaction." *Applied Surface Science* 618 (2023): 156599.
28. Aboubakr, Ahmed Esmail A., Malik Dilshad Khan, Neerish Revaprasadu, Pierre Millet, Chen-Hsiung Hung, and **Waleed MA El Rouby**. "Sn-doped g-C $_3$ N $_4$ as a novel photoelectrocatalyst for water oxidation." *Journal of Physics and Chemistry of Solids* 176 (2023): 111242.
29. Shokry, R., H. M. Abd El Salam, D. Aman, S. Mikhail, T. Zaki, **W. M. A. El Rouby**, A. A. Farghali, W. Al Zoubi, and Y. G. Ko. "MOF-derived core–shell $\text{MnO}@ \text{Cu/C}$ as high-efficiency catalyst for reduction of nitroarenes." *Chemical Engineering Journal* 459 (2023): 141554.
30. Hamdi, Esraa, Abdalla Abdelwahab, Ahmed A. Farghali, **Waleed MA El Rouby**, and Francisco Carrasco-Marín. "2D Hierarchical NiMoO_4 Nanosheets/Activated Carbon Nanocomposites for High Performance Supercapacitors: The Effect of Nickel to Molybdenum Ratios." *Materials* 16, no. 3 (2023): 1264.
31. Abdel-Wahab, Mohamed Sh, Hadeer K. El Emam, and **Waleed MA El Rouby**. "Sputtered Cu-doped NiO thin films as an efficient electrocatalyst for methanol oxidation." *RSC advances* 13, no. 16 (2023): 10818-10829.
32. AbdElAziz, Hadeer H., Mohamed Taha, **Waleed MA El Rouby**, M. H. Khedr, and Laila Saad. "Evaluating the performance of $\text{Cs}_2\text{PtI}_6-x\text{Br}_x$ for photovoltaic and photocatalytic applications using first-principles study and SCAPS-1D simulation." *Heliyon* 8, no. 10 (2022): e10808.
33. Afify, Mohamed S., Mohamed M. El Faham, Usama Eldemerdash, S. I. El-Dek, and **Waleed MA El Rouby**. "Effects of Ag doping on LaMnO_3 photocatalysts for photoelectrochemical water splitting." *Applied Physics A* 128, no. 10 (2022): 871.
34. Abdel Maksoud, M. I. A., Gharieb S. El-Sayyad, Nahla Mamdouh, and **Waleed MA El Rouby**. "Gamma-Rays Induced Synthesis of Ag-Decorated $\text{ZnCo}_2\text{O}_4\text{--MoS}_2$ Heterostructure as Novel Photocatalyst and Effective Antimicrobial Agent for Wastewater Treatment Application." *Journal of Inorganic and Organometallic Polymers and Materials* 32, no. 9 (2022): 3621-3639.
35. Aziz, Ahmed A. Abdel, Ali T. Abdel-Motagaly, Ahmed A. Ibrahim, **Waleed MA El Rouby**, and Mahmoud A. Abdalla. "Expanded graphite monopole antenna printed on flexible paper substrate for 2.4 GHz wireless systems." *International Journal of Microwave and Wireless Technologies* 14, no. 7 (2022): 906-913.
36. El-Shahawy, A. A. G., W. Kamal, O. M. Sayed, **W. M. A. El Rouby**, H. Y. Zahran, I. S. Yahia, S. I. El-Dek, and A. A. Farghali. "Preparation and characterization of ketoprofen and pentoxifylline agents based layered double hydroxides-chitosan nanohybride and its releasing control." *Digest Journal of Nanomaterials & Biostructures (DJNB)* 17, no. 2 (2022).
37. Abdel Maksoud, M. I. A., Gharieb S. El-Sayyad, Nahla Mamdouh, and **Waleed MA El Rouby**. "Gamma-Rays Induced Synthesis of Ag-Decorated $\text{ZnCo}_2\text{O}_4\text{--MoS}_2$ Heterostructure as Novel Photocatalyst and Effective Antimicrobial Agent for Wastewater Treatment Application." *Journal of Inorganic and Organometallic Polymers and Materials* 32, no. 9 (2022): 3621-3639.
38. Elbakkay, Mohamed H., S. I. El-Dek, Ahmed A. Farghali, and **Waleed MA El Rouby**. "Highly active atomic Cu catalyst anchored on superlattice CoFe layered double hydroxide for

- efficient oxygen evolution electrocatalysis." *International Journal of Hydrogen Energy* 47, no. 17 (2022): 9876-9894.
39. Elfeky, Esmat MS, Mohamed R. Shehata, Yahia H. Elbashar, Mohammad H. Barakat, and **Waleed MA El Rouby**. "Developing the sensing features of copper electrodes as an environmental friendly detection tool for chemical oxygen demand." *RSC Advances* 12, no. 7 (2022): 4199-4208.
 40. Mohamed A. Nassar, S. I. El-dek, **Waleed MA El Rouby**, and Ahmed G. El-Deen, Highly efficient asymmetric supercapacitor-based on Ni-Co oxides intercalated graphene as positive and Fe₂O₃ doped graphene as negative electrodes, *Journal of Energy Storage* 44 (2021) 103305.
 41. Mostafa Fytory, Kholoud K. Arafa, **Waleed M. A. El Rouby**, Ahmed A. Farghali, Mahmoud Abdel-Hafiez, and Ibrahim M. El-Sherbiny, Dual-ligated metal organic framework as novel multifunctional nanovehicle for targeted drug delivery for hepatic cancer treatment, *Scientific reports* 11, no. 1 (2021) 1-13.
 42. Ahmed S. Doghish, Gharieb S. El-Sayyad, Al-Aliaa M. Sallam, Waleed F. Khalil, **Waleed M. A. El Rouby**, Graphene oxide and its nanocomposites with EDTA or chitosan induce apoptosis in MCF-7 human breast cancer, *RSC Adv.* 11 (2021) 29052. <https://doi.org/https://doi.org/10.1039/D1RA04345E>.
 43. A.E.A. Aboubakr, **Waleed M.A. El Rouby**, M.D. Khan, N. Revaprasadu, P. Millet, Effect of morphology and non-metal doping (P and S) on the activity of graphitic carbon nitride toward photoelectrochemical water oxidation, *Sol. Energy Mater. Sol. Cells.* 232 (2021) 111326.
 44. M.H. Elbakkay, **Waleed M.A. El Rouby**, A. Mariño-López, A. Sousa-Castillo, V. Salgueiriño, S.I. El-Dek, A.A. Farghali, M.A. Correa-Duarte, P. Millet, One-pot synthesis of TiO₂/Sb₂S₃/RGO complex multicomponent heterostructures for highly enhanced photoelectrochemical water splitting, *Int. J. Hydrogen Energy.* (2021). <https://doi.org/10.1016/j.ijhydene.2021.07.012>.
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