

CURRICULUM VITA

MARWA A. RAMADAN

Associated Professor of Photobiology and Nanotechnology Ph.D.
National Institute of Laser Enhanced Science (NILES)
Cairo University, Giza 12613, Egypt
Mobile# +2 (010)64592700
Email-1: marwali_mus@cu.edu.eg
Email-2: marwali_mus@yahoo.com



PERSONAL INFORMATION

Full Name: Marwa Ali Ramadan Hassan
Gender: Female
Date of Birth: 13 June 1984
Nationality: Egyptian
Place of Birth: Egypt **Residence:** 6th October City, Egypt **Marital Status:** Married

SHORT BIOGRAPHY

Dr. Marwa Ramadan has graduated from the Faculty of Science, Cairo University in 2005 with major in Chemistry/Entomology and received her Master of Laser Science in Photochemistry & Photobiology from the National Institute of Laser Enhanced Science, Cairo University in 2011. She then obtained her Ph.D. in Photochemistry & Photobiology from the same Department in May 2018. She has contributed to the fields of photobiology and nanomaterials and their biomedical applications. She has significant experience in the development of various nanostructured materials for biological applications and other different fields. She has published 3 papers in peer-reviewed international journals. Dr. Ramadan has an *h*-index of 10 as of February, 2025.

EDUCATION

- Ph.D.** **Nanotechnology, Laser Sciences, Photochemistry & Photobiology, 2018, National Institute of Laser Enhanced Sciences (NILES), Cairo University, Egypt.**
Dissertation Title: Study the Efficiency of Graphene Oxide Nanocomposite as a Novel Photothermal Candidate: in Vitro Study.
- M.Sc.** **Nanotechnology, Laser Sciences, Photochemistry & Photobiology, 2011, National Institute of Laser Enhanced Sciences (NILES), Cairo University, Egypt.**
Dissertation Title: Silver Nanocomposites: Preparation, Characterization, Photostability, and Their Role in Biological Applications.
- Diploma** **Laser Sciences, 2006, National Institute of Laser Enhanced Sciences (NILES), Cairo University, Egypt.**
Division: Photochemistry & Photobiology
- B.Sc.** **Chemistry, 2005, Faculty of Science, Cairo University, Giza, Egypt**
Grade: Very Good *Minor:* Entomology

ACADEMIC POSITIONS

- | | |
|-----------------|---|
| 2024 – Till now | Associated Professor, National Institute of Laser Enhanced Science, Cairo University, Giza, Egypt |
| 2018 – 2024 | Lecturer, National Institute of Laser Enhanced Science, Cairo University, Giza, Egypt |
| 2011 – 2018 | Assistant Lecturer, National Institute of Laser Enhanced Science, Cairo University, Giza, Egypt |

PROFESSIONAL EXPERIENCE

- ☐ A Member of *The Quality Assurance and Accreditation Unit*, NILES, Cairo Univ. (2010- present).
- ☐ A Member of *The Technical support team at NILES for the electronic platform for distance education at Cairo University (Blackboard, Gourmet and thinqui)*, NILES, Cairo Univ. (2020- present).
- ☐ A Treasurer of the LAMPA Department Council Board (2019 – 2020).
- A Treasurer of the NILES Council Board (2024 – present).
- ☐ A member of the LAMPA Department Council Board (2019 – 2020) and (2022-2023)
- A member of the NILES Council Board (2024 – present).
- ☐ A Coordinator of many workshops held by *The Quality Assurance and Accreditation Unit*, NILES, Cairo Univ. (2010- present).

RESEARCH INTERESTS

- ☐ Nanotechnology (various aspects of Preparation, Characterization, and Applications)
- ☐ Photobiology (Photodynamic Therapy (PDT) and Photothermal Therapy (PTT)).
- ☐ Photochemistry
- ☐ Laser applications
- ☐ Cytotoxicity
- ☐ Cancer therapy
- ☐ Entomology

TEACHING EXPERIENCE

I have been teaching the following courses for Diploma, Master and Ph.D. students; Division of Photochemistry and Photobiology, NILES, Cairo Univ.

- ☐ Photobiology I
- ☐ Advanced Photochemistry and Photobiology
- ☐ Light in Bioscience
- ☐ Bio-Photonics
- ☐ Environmental Photochemistry and Photobiology
- ☐ Photobiological Techniques
- ☐ Bio-nanotechnology
- ☐ Laser-Tissue Interaction
- ☐ Experimental Studies of Photochemistry, Photobiology, and Nanotechnology

SUPERVISORY EXPERIENCE

M.Sc. Theses

- Chemo-photothermal effect of cobalt/silver nanocomposite loaded with 6-mercaptopurine on breast cancer cell line-2024-faculty of science, Cairo University, Giza, Egypt
- Photothermal effect of graphene oxide gold nanocomposite on cancer cells:in vitro study-2022- faculty of science, Cairo University, Giza, Egypt

- Effect of mycosynthesised metallic nanoparticles combined with photothermal therapy in cancer cell lines.2022 faculty of science, Cairo University, Giza, Egypt

Ph.d. Theses

- Study the effect of condensed medium on the improvement of the photostability (coherent and incoherent light) of some drugs in the ground and excited states -2019- National Institute of Laser Enhanced Science, Cairo University, Giza, Egypt
- Spectroscopic analysis of nanoparticles hemolytic ppproperties in vitro-2023- National Institute of Laser Enhanced Science, Cairo University, Giza, Egypt

SELECTED PUBLICATIONS

- 1) Synthesis and application of Cobalt-Silver nanohybrid for antimicrobial wastewater treatment and agricultural productivity enhancement, Sayed M. S. Abo El-Souad; **Marwa A. Ramadan**; D. Zahran, Scientific Reports;2025. DOI: [10.1038/s41598-025-99333-w](https://doi.org/10.1038/s41598-025-99333-w)
- 2) Chitosan Nanoparticles: A Dual Approach for Mollusk and Infection Control in (Biomphalaria alexandrina) Snails, Hebtallh Ahmed; **Marwa A. Ramadan**; Amna H. Faïd; Olfat A. Hammam; Samah I. Ghoname, Microscopy Research and Technique,2025. DOI: [10.1002/jemt.24872](https://doi.org/10.1002/jemt.24872)
- 3) Effect of cisplatin/gold chitosan nanocomposite on oral squamous cell carcinoma and oral epithelial cells Ahmed, B. A., R. O. M. Mohsen, Marwa Sharaky, **Marwa. A. Ramadan**, A. H. Faïd, and M. H. Mohamed, cancer nanotechnology, 2025. DOI: [10.1186/s12645-025-00306-5](https://doi.org/10.1186/s12645-025-00306-5)
- 4) β -glucan nanoparticles alleviate acute asthma by suppressing ferroptosis and DNA damage in mice Bassam W. Ebeed; Islam Ahmed Abdelmawgood; Mohamed A. Kotb; Noha A. Mahana; Ayman Saber Mohamed; **Marwa A. Ramadan**; Abeer Mahmoud Badr; Manar Nasr; Osama Mohsen Qurani; Reem Mohamed Hamdy et al. Apoptosis.2024 DOI: [10.1186/s12645-024-00255-5](https://doi.org/10.1186/s12645-024-00255-5)
- 5) Laser enhanced photothermal effect of silver nanoparticles synthesized by chemical and green method on Gram-positive and Gram-negative bacteria. Elham M. Mostafa; Y. Badr; **Marwa A. Ramadan**; Mohamed M. M. Hashem; Khaled Abo-El-Sooud; Heba N. Deif; Amna H. Faïd. BMC Chemistry 2024 DOI: [10.1186/s13065-024-01263-7](https://doi.org/10.1186/s13065-024-01263-7)
- 6) β -glucan mitigates ovalbumin-induced airway inflammation by preventing oxidative stress and CD8+ T cell infiltration. Islam Ahmed Abdelmawgood; Mohamed Kotb; Hamid Ashry; Bassam W. Ebeed; Noha A. Mahana; Ayman Saber Mohamed; Jehane I. Eid; **Marwa A. Ramadan**; Nahla S. Rabie; Mariam Y. Mohamed et al. International Immunopharmacology 2024. DOI: [10.1016/j.intimp.2024.111985](https://doi.org/10.1016/j.intimp.2024.111985)
- 7) Silver-graphene oxide nanocomposite doping chitosan/PVA membrane for arsenic (III) elimination from aqueous solution. Amr Abd-Elghany; **Marwa A. Ramadan**; Shaimaa T. El-Wakeel; Ahmad Khaleel AlOmari; Ebtesam Abd Elghany Mohamad-Materials Research Express-2024. DOI: [10.1088/2053-1591/ad4c3d](https://doi.org/10.1088/2053-1591/ad4c3d)

- 8) Green synthesis of silver and iron oxide nanoparticles mediated photothermal effects on *Blastocystis hominis* Shaimaa Alexeree; Hanan M. Abou-Seri; Hala E. Shams EL-Din; Doaa Youssef; **Marwa A. Ramadan**.Lasers in Medical Science, 2024.

[DOI: 10.1007/s10103-024-03984-6](https://doi.org/10.1007/s10103-024-03984-6)
- 9) Reducing the effective dose of cisplatin using cobalt modified silver nano-hybrid as a carriers on MCF7 and HCT cell models. Amna H. Faïd; **Marwa A. Ramadan** BMC Chemistry, 2024.[DOI: 10.1186/s13065-024-01173-8](https://doi.org/10.1186/s13065-024-01173-8)
- 10) Laser photostability of chitosan coated gold-GO nanocomposite and its role as a nano-therapeutic agent for control breast cancer growth. Marwa A. Ramadan; Sara Gad; Marwa Sharaky; Amna H. Faïd. Discover Applied Sciences, 2024
[DOI: 10.1007/s42452-024-05808-2](https://doi.org/10.1007/s42452-024-05808-2)
- 11) Antitumor efficiency and photostability of newly green synthesized silver/graphene oxide nanocomposite on different cancer cell lines, Amna H. Faïd; M. Abdel Rafea; Sara Gad; Marwa Sharaky; **Marwa A. Ramadan**, Cancer Nanotechnology, 2024. [DOI: 10.1186/s12645-024-00255-5](https://doi.org/10.1186/s12645-024-00255-5)
- 12) Anticancer effect and laser photostability of ternary graphene oxide/chitosan/silver nanocomposites on various cancer cell lines, **Marwa A Ramadan**; Marwa Sharaky; Sara Gad; Hoda A Ahmed; Mariusz Jaremko; Abdul-Hamid Emwas; Amna H Faïd, Nanomedicine, 2024. [DOI: 10.2217/nnm-2023-0264](https://doi.org/10.2217/nnm-2023-0264)

Enhanced Anticancer Effect of Green Synthesized Nanogold On Different Cell Lines,Amna H faïd; Marwa sharaky; **Marwa A Ramadan**, International Journal of Advanced Scientific Research and Innovation, 2023. [DOI: 10.21608/ijasri.2023.242424.1010](https://doi.org/10.21608/ijasri.2023.242424.1010)
- 13) Boosting the nonlinear optical absorption of graphene oxide, and gold nanorods by tailoring graphene oxide-gold nanorods hybrids,Abeer Salah; Salah Hassab Elnaby; **Marwa A.Ramadan**, SN Applied sciences, 2023.

[DOI:10.1007/s42452-023-05472-y](https://doi.org/10.1007/s42452-023-05472-y)
- 14) Photostability, cytotoxicity, and photothermal impact of AgNPs, CoAgNC, and IOAgNC on HEp-2 laryngeal carcinoma cells,**Marwa A. Ramadan**; Tarek A. El-Tayeb, SN Applied sciences, 2023. [DOI: 10.1007/s42452-023-05472-y](https://doi.org/10.1007/s42452-023-05472-y)
- 15) Enhancing the antibacterial effect of iron oxide and silver nanoparticles by extremely low frequency electric fields (ELF-EF) against *S. aureus*, Ebtesam Mohamad; **Marwa A Ramadan**; Marwa M. Mostafa; mona elneklawi, Electromagnetic Biology and Medicine ,2023, [DOI: 10.1080/15368378.2023.2208610](https://doi.org/10.1080/15368378.2023.2208610)
- 16) Examination of the interaction between bovine albumin and gold nanoparticles, Ebtesam Mohamad; Monira Rageh; Rowida Ezz-Aldoula; **Marwa Ramadan**, Egyptian Journal of Chemistry,2023. [DOI: 10.21608/ejchem.2023.223345.8267](https://doi.org/10.21608/ejchem.2023.223345.8267)
- 17) Improved Anticancer Activity of Doxorubicin Gold Nanohybrid on Breast Cell Line, Amna H. Faïd ;Elham M. Mostafa;**Marwa A Ramadan**,International Journal of Advanced Engineering and Civil Research,2022. [DOI:10.21608/ijaecr.2023.212453.1000](https://doi.org/10.21608/ijaecr.2023.212453.1000)

- 18) Reduced Graphene Oxide @ Magnetite Nanocomposite and ELFEF effect on Staphylococcus aureus growth inhibition, Marwa M. Mostafa, Ebtesam A. Mohamad, **Marwa A. Ramadan**, Mona S. Elneklawi, Egypt Journal of Chemistry, 2022, [DOI: 10.21608/EJCHEM.2022.157530.6825](https://doi.org/10.21608/EJCHEM.2022.157530.6825)
- 19) Photochemical effect of silver nanoparticles on flesh fly larval biological system, Mona M. Ali, **Marwa A. Ramadan**, Nirvina A. Ghazawy, Amira Afify, Shaker A. Mousa, Acta Histochemica. 2022, [DOI: 10.1016/j.acthis.2022.151871](https://doi.org/10.1016/j.acthis.2022.151871)
- 20) Ionic Gelation Synthesis, Characterization and Cytotoxic Evaluation of Chitosan Nanoparticles on Different Types of Human Cancer Cell Models, **Marwa A Ramadan**, Marwa Sharaky, Amna H. Faid, Egypt Journal of Chemistry, 2022, [DOI: 10.21608/EJCHEM2021.82733.4070](https://doi.org/10.21608/EJCHEM2021.82733.4070)
- 21) Synthesis, characterization and cytotoxic evaluation of graphene oxide nanosheets: In vitro liver cancer model, Samah A Loutfy, Taher A Salaheldin, **Marwa A Ramadan**, Khaled Yehia Farroh, Zeinab F Abdallah, Tareq Youssef, Asian Pacific Journal of Cancer Prevention, 2017, [DOI: 10.22034/APJCP.2017.18.4.955](https://doi.org/10.22034/APJCP.2017.18.4.955)
- 22) Rapid and sensitive microplate assay for screening the effect of silver and gold nanoparticles on bacteria Rehab M Amin, Mona B Mohamed, **Marwa A Ramadan**, Thomas Verwanger, Barbara Krammer, Nanomedicine 2009 [DOI: 10.2217/nmm.09.50](https://doi.org/10.2217/nmm.09.50)
- ✚ Acknowledgment for me in chapter 3 (In Vivo Suppression of Solid Ehrlich Cancer via Ag and Co/Ag Mediated PTT) in the Holistic Approaches to Infectious Diseases book (Published 18 July 2016) due to the preparation of nanomaterials

SELECTED PROJECTS

☐ Contributed as a team member to the project entitled: “*nanoarticles applicatios in cancer therapy*” funded by the Center for Special Studies and Programs Bibliotheca, Alexandria.

Contributed as a team member to the project entitled: “*Nanotechnology in biological applications*” funded by cairo university.

PATENTS

☐ Cobalt/silver core-shell nanoparticles application in solid tumor treatment, Tarek El-tayeb, Eman gomaa, Mona Bakr, Marwa Ali Ramadan International Patent, Publication Number WO2011/110186A1- Publication Date (15/9/2011).

REVIEW ACTIVITY

1-Journal of Inflammation Research, Publisher Dove Medical Press, 2023, ISSN: 1178-7031

2-journal, Materials Today Chemistry, ISSN: 2468-5194, Elsevier Editorial

3- BioNanoScience

4- Discover Materials

5-International Journal of Biological Macromolecules

CITATION REPORTS

- Orcid: <https://orcid.org/0000-0002-4148-3673>
- Research Gate: <https://www.researchgate.net/profile/Marwa-Ramadan-3>
- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57194275104> (Total citations: 327, h-index: 11)
- Web of Science ResearcherID: JBJ-6603-2023 (Total citations: 270, h-index: 11)
- Google Scholar: (Total citations: 140, h-index: 12)

CONFERENCES & WORKSHOPS

- ☐ International Conference on Laser Applications (ICLA), Cairo Univ., 2007, Cairo (Attendance).
- ☐ Workshop on Photodynamic Therapy (PTD): Diagnosis and Therapy, 19th-20th March 2007, GUC Campus, Cairo, Egypt.
- ☐ International Conference on Laser Applications (ICLA), Cairo Univ., 2011 ., Cairo (Attendance).
- ☐ International Conference on Laser Applications (ICLA), Cairo Univ..2017 , Cairo (Attendance).
- ☐ International Conference on Laser Applications, (ICLA10), Cairo Univ., 23 - 28 November 2019, Cairo (Attendance).
- ☐ International Conference on Science& Sustainable Development (2ndICSSD), National Research Center (NRC),2021,Giza (Attendance).
- ☐ Workshop on Innovation & Entrepreneurship, 25th-26th October 2021, National Research Center (NRC),Giza, Egypt.
- ☐ Workshop on from research to industry, 27th October 2021, National Research Center (NRC),Giza, Egypt.

AWARDS AND PRIZES

- ☐ Scientific Publication Award, Cairo University, Egypt for the years 2010, 2018, 2020.
- ☐ A certificate of appreciation in Honoring 100 inventors Ceremony in the Smart Village, Egypt (2018)
- ☐ A certificate of appreciation and a medallion from the Faculty of Science- Cairo University for my graduation (2005).

PROFESSIONAL TRAINING

- Faculty and Leadership Development Project (FLDP) Cairo University-(2007till now)
- Career ethics and protocols
- Active teaching
- Methods of scientific research
- Active communication skills
- The use of technology in teaching
- Strategic planning
- Active presentation skills
- Credit hour systems
- Quality standards in teaching
- The organization of scientific conferences
- Statistical analysis in biological experiments
- ICDL- course (2010) Cairo University
- TOEFL- course (2006) Cairo University
- Insect control in Research Institute Of Medical Entomology (RIME) (2004)
- Training in the Chemistry Department at the National Research Center (NRC),(2004).

ONLINE COURSES & WEBINARS

- Online course: Research Writing in the Sciences (2020)

INASP "International Network for the Availability of Scientific Publications" The AuthorAID project <https://moodle.inasp.info/course/view.php?id=168>

- **CABI Online-platform webinar**

CABI Scientific Resources for Agriculture and Life Sciences Organized in collaboration with the Egyptian Knowledge Bank (EKB) June 2020

- **Nano-Online-platform webinar**

How to accelerate your research with a Nature research solution Organized in collaboration with the Egyptian Knowledge Bank (EKB) June 2020

- **Discover with Elsevier: Getting Published**

Organized in collaboration with the Egyptian Knowledge Bank (EKB), 2020

- **Discover with Elsevier: Mendeley**

Organized in collaboration with the Egyptian Knowledge Bank (EKB) 2020

- **Discover the new enhanced CiteScore 2019 - Scopus**

Organized in collaboration with the Egyptian Knowledge Bank (EKB) 2020

- **How to conduct evidence-based research**

With Elsevier, research academy 2020

- **How to secure funding - ECR edition**

With Elsevier, research academy 2020

LANGUAGE SKILLS

- **Arabic:** Mother Tongue
- **English:** very good writing, reading, and speaking skills.

COMPUTER SKILLS

- Good knowledge of Windows 98, 2000, XP, 7, 10
- Advanced level in Microsoft Office 2000, 2007 and 2010
- Excellent in Excel, Word, and PowerPoint
- Excellent in Internet tools, scientific research engines, and EKB bank
- Very good at using the Endnote program.
- Excellent in using the Mendeley program.
- Very good in using Black Board
- Very good in using Gourmet
- Very good in using Zoom program

PERSONAL SKILLS

- Ability to work in a team.
- Ability to initiate and implement new ideas.
- Good communication with people and self-motivation.

REFERENCES

- **Prof. Dr. Tarek El-Tayeb**

Professor of Photobiology -National Institute for Laser Enhanced Sciences (NILES), Cairo University, Cairo, Egypt

Mobile: 01066642662

Email Address: hasb1972@yahoo.com

- **Prof. Dr. Amira Afify**

Prof. of molecular biology-Biotechnology Department, Faculty of Science, Cairo University, Cairo, Egypt;

Mobile: 01225284216

Email Address: amiraafify@yahoo.com

- **Assoc. Prof. Abdallah Zedan**

Associate Prof. of Photochemistry -National Institute for Laser Enhanced Sciences (NILES), Cairo University, Cairo, Egypt

Mobile: 01102776334

Email Address: azedan@vcu.edu

azedan@niles.edu.eg

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