Curriculum Vitae

Digital identifier

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Specialization:

Environmental and Applied Microbiology

Personal data :

Name:	Dalia El-Sayed Mohamed Ibrahim El-Badan
Place of birth:	Alexandria-Egypt
Nationality:	Egyptian
Religion:	Moslem

Educational Background

February 2022	**Professional Diploma In Quality Management** obtained from The Arab Academy for Science, Technology and Maritime Transport-Productivity and Quality Institute
December 2007	**PhD.** study on "Isolation, characterization and biotechnological application of bacteria adapted to environmental stresses".
May 2003	**M.Sc.** in Microbiology, Faculty of Science, Alexandria University, Egypt. Title "Biodegradation of Microbial Polyesters".
1999	Postgraduate studies at the Faculty of Science, Alexandria University, Alexandria, Egypt.
1998	**B.SC.** in Microbiology, grade Excellent with Honour Faculty of Science, Microbiology Section, Alexandria University.
1994	General Secondary School certificate E.G.C.(**E**l-Nasr **G**irls **C**ollage)

Employment :

2022-till now	Associate Professor of Microbiology, Department of Biological Sciences, Faculty of Science, Beirut Arab University, Beirut, Lebanon
2021- 2022	Associate Professor of Microbiology, at Botany and Microbiology Department, Faculty of Science, Alexandria University, - Egypt
2007-2021	Lecturer at Botany and Microbiology Department, Faculty of Science, Alexandria University, - Egypt
2003	Assistant lecturer at Botany and Microbiology Department, Faculty of Science, Alexandria University, - Egypt
1998	Demonstrator in the Botany and Microbiology Department at the Faculty of Science, Alexandria University, Alexandria, Egypt

Publication:

1. Zahra Abbass Farroukh, Jamilah Borjac, **Dalia El Badan**. A dumpsite-isolated *Bacillus safensis* Z1 with protease yield for potential industrial use, Journal of Genetic Engineering and Biotechnology, 23(3), 2025, https://doi.org/10.1016/j.jgeb.2025.100543
2. Naga, N.G., **El-Badan, D.E**., Mabrouk, M.E. et al. Innovative application of ceftriaxone as a quorum sensing inhibitor in *Pseudomonas aeruginosa*. Scientific Reports 15, 5022 (2025). https://doi.org/10.1038/s41598-025-87609-0
3. S Rawas, N Al Hakawati, A Mcheik, **DES El Badan**. *Micromeria barbata* for targeting MRSA virulence: In silico and in vitro studies. Heliyon, 2025, 11(1) e41536. doi:10.1016/j.heliyon.2024.e41536
4. Jana Rammala, Walaa Diabb, Ghassan Nassera, Zaher Abdel Bakid, **Dalia El Badan**, Chaden Haidarg, Akram Hijazia. Transport Pathways and Bioavailability of Soil-Borne Heavy Metals in Agricultural Systems. Journal of Applied Organometallic Chemistry 2025, 5(3) 368-391.
5. Mohamad T Raad, Ghosoon Albahri, Hassan El Said, Zaher Abdel Baki, Akram Hijazi, Othmane Merah, **Dalia El Badan**, Mohamad Nasser. Polyphenol-Rich Aqueous Pomegranate Peel Extract: Chemical Characterization and Topical Healing Efficacy on Rabbit Skin Wounds. Chem. Methodol., 2025, 9(8) 662-674. DOI: 10.48309/Chemical Methodologies 2025, 9 (8) 662-674
6. Rawas, Shiraz; **El-Badan, Dalia**; and AL Hakawati, Nawal (2025) "Phytochemical analysis and antimicrobial activity of micromeria barbata leaf and stem extracts against *Pseudomonas aeruginosa*: insights from molecular docking and in vitro assays," *BAU Journal - Science and Technology*: Vol. 6: Iss. 2. DOI: https://doi.org/10.54729/2959-331X.1149
7. Hellany, H.; Assaf, J.C.; Barada, S.; **El-Badan, D**.; Hajj, R.E.; Abou Najem, S.; Abou Fayad, A.G.; Khalil, M.I. Isolation and Characterization of *Bacillus Subtilis* BSP1 from Soil: Antimicrobial Activity and Optimization of Fermentation Conditions. Processes 2024, 12, 1621. https://doi.org/10.3390/pr12081621
8. Hellany, H.; Assaf, J.C.; **El-Badan, D**.; Khalil, M. Quantification, Prevalence, and Pretreatment Methods of Mycotoxins in Groundnuts and Tree Nuts: An Update. Processes **2023**, *11*, 3428. https://doi.org/10.3390/pr11123428
9. Hegazy, G.E., Olama, Z.A., Abou-Elela, G.M., Ramadan, H.S., Ibrahim, W.M., **El Badan, D.El-S.** Biodiversity and biological applications of marine actinomycetes—Abu-Qir Bay, Mediterranean Sea, Egypt. J Genet Eng Biotechnol 21, 150 (2023). https://doi.org/10.1186/s43141-023-00612-8
10. NG Naga, AA Zaki, **DE El-Badan**, HS Rateb, KM Ghanem, MI Shaaban. (2023). Inhibition of *Pseudomonas aeruginosa* quorum sensing by methyl gallate from *Mangifera indica*. Scientific Reports 13 (1), 17942. https://doi.org/10.1038/s41598-023-44063-0
11. NG Naga, **DE El-Badan**, KM Ghanem, MI Shaaban. (2023). It is the time for quorum sensing inhibition as alternative strategy of antimicrobial therapy. Cell Communication and Signaling **21**, 133. https://doi.org/10.1186/s12964-023-01154-9
12. Walaa M Ibrahim, Zakia A Olama, GM Abou-Elela, Heba S Ramadan, Ghada E Hegazy**, Dalia El S El Badan**. (2023). Exploring the antimicrobial, antiviral, antioxidant, and antitumor potentials of marine *Streptomyces tunisiensis* W4MT573222 pigment isolated from Abu-Qir sediments, Egypt. Microbial Cell Factories 22 (1):1-17. https://doi.org/10.1186/s12934-023-02106-1
13. Naga, N.G., Zaki, A.A., **El-Badan, D.E.,** Rateb, H.S., Ghanem, K.M., and Shaaban, M.I. (2022). Methoxyisoflavan derivative from Trigonella stellata inhibited quorum sensing and virulence factors of *Pseudomonas aeruginosa*. World J Microbiol Biotechnol 38, 156. https://doi.org/10.1007/s11274-022-03337-x
14. Naga NG, **El-Badan DE**, Rateb HS, Ghanem KM and Shaaban MI (2021) Quorum Sensing Inhibiting Activity of Cefoperazone and Its Metallic Derivatives on *Pseudomonas aeruginosa*. Front. Cell. Infect. Microbiol. 11:716789. https://doi.org/10.3389/fcimb.2021.716789

15. Allam F., Elnouby M., El-Khatib K., Sabry S., **El-Badan D**. (2020). Optimization of factors affecting current generation, biofilm formation and rhamnolipid production by electroactive *Pseudomonas aeruginosa* FA17. International Journal of Hydrogen Energy. https://doi.org/10.1016/j.ijhydene.2020.08.070

16. Zaghloul E.H., Ibrahim H.A.H., **El-Badan D.E.S.** (2020). Production of biocement with marine bacteria; *Staphylococcus epidermidis* EDH to enhance clay water retention capacity. Egyptian Journal of Aquatic Research. https://doi.org/10.1016/j.ejar.2020.08.005

17. Allam F., Elnouby M., El-Khatib K., **El-Badan D.,** Sabry S. (2020) Water Hyacinth (*Eichhornia crassipes*) biochar as an alternative cathode electrocatalyst in an air-cathode single chamber microbial fuel cell. International journal of Hydrogen Energy, 45(10): 5911-5927. https://doi.org/10.1016/j.ijhydene.2019.09.164

18. **El-Badan D**., Khaled M. and Ghanem K. (2020). Optimization of anolyte solution in Microbial Fuel Cell using statistical experimental design. Egyptian journal of Aquatic Biology and Fisheries. 24(1): 173-187. https://doi.org/10.21608/EJABF.2020.70035.

19. **El-Badan D**., Naga N., Mabrouk M., Ghanem M. (2020) Decolorization of Remazol Brilliant Blue dye by Escherichia coli. NG188 under optimized conditions. Egyptian Journal of Botany. 60(2): 461-475. https://doi.org/10.21608/EJBO.2020.18560.1372.

20. **El-Badan D**., Khaled M. and Ghanem K. (2019) A sustainable bioelectricity production from wastewater. Egyptian journal of Aquatic Biology and Fisheries. 23(5): 225-233. https://doi.org/10.21608/ejabf.2019.65179.

21. **El-Badan D**., Badry H., Medhat H., Ghozlan H., Sabry S. (2019) Evaluation for Rock Phosphate Solubilization Using *Streptomyces* sp. RHS33. Advances in Applied Microbial Biology. 1(1): 1-11.

22. Ibrahim H., Wefky S., Abo Elela G., El Sersy N., **El Badan D.** and Hassan A. (2018) Bio-surfactants: a package of environmental and industrial benefits. International Journal of Recent Advances in Multidisciplinary Research. 5(12): 4275-4291.

23. **El-Badan D**., Abou-Zeid D., Hassan H., and Sabry S. (2016) Statistical Optimization of Phosphate Solubilization by *Erwinia* sp.hdds3fr. Journal of Pure and Applied Microbiology. 10(2): 905-914.

24. Ghanem N., Mabrouk M., Sabry S., and **El-Badan D.** (2005). Degradation of polyesters by a novel marine *Nocardiopsis aegyptia* sp. nov.: Application of Plackett-Burman experimental design for the improvement of PHB depolymerase activity. Journal of General Applied. Microbiology, 51, 151–158.