

Influence of Curriculum Vitae

PERSONAL INFORMATION	Prof. Dr. Nat. Dis. Ismail Warad Dean of the Scientific Research - An-Najah National University, Nablus, Palestine. <u>World's Top 2% Scientists</u>
	 Department of Chemistry and Earth Sciences, PO Box 2713, Qatar University, Doha, Qatar.  Distinguished full Professor, Department of Chemistry College of Science, An-Najah National University, Nablus, Palestine.  http://staff.najah.edu/warad  Full Professor at Department of Chemistry, King Saud University, P. O. Box 2455, Riyadh 11451, Saudi Arabia.  +972595787580,  warad@najah.edu or i.kh.warad@gmail.com  http://orcid.org/0000-0001-8853-8961
	Sex Male Date of birth 19 September 1973 Nationality Palestinian
Employment History  Prof. Ismail Warad google scholar	http://scholar.google.com/eg/citations?sortby=pubdate&hl=en&user=vvcH6FcAAAAJ&view_op=list_works *Visiting researcher to Chemistry Department, Ioannina University, Ioannina, Greece *Visiting researcher to Chemistry Department, Valencia polytechnic University, Valencia, Spain. *Visiting researcher to Institute of Organic Chemistry, Auf der Morgenstelle 18, 72076, Tübingen, Deutschland (GERMANY).
2023 – Up to now	Doctor of Science The report was submitted 2025.
2019-2022	Professor Qatar University, Doha, Qatar
2016 – now	Distinguished professor Department of Chemistry, Science College, An-Najah National University, Nablus, Palestine.
2013 – 2015	Full professor Department of Chemistry, Science College, An-Najah National University, Nablus, Palestine.
2012– 2013	Full professor Department of Chemistry, Science College, King Saud University, Riyadh, Saudi Arabia.
2008– 2012	Associate professor Department of Chemistry, Science College, King Saud University, Riyadh, Saudi Arabia.
2005– 2008	Assistant professor Department of Chemistry, Science College, King Saud University, Riyadh, Saudi Arabia.
2003– 2005	Post-doctoral Post-doctoral position for one year in Institute of Organic and Inorganic Chemistry, Tuebingen, Ak /Prof. K. Albert and E. Lindner.
2000 – 2003	Doctor of Philosophy Ph.D./Inorganic Chemistry (Catalysis) from Eberhard-Karls-Univ. Tuebingen, Germany entitles: Diamine(phosphine)ruthenium(II) Complexes and Their Application in The Catalytic Hydrogenation of α,β-Unsaturated Ketones in Homogeneous and Heterogeneous Phase
1995 – 1998	Master of Chemistry

	Department of Chemistry, Science College, An-Najah National University, Nablus, Palestine. with excellent average entitle: Kinetics and Mechanism of Oxidation of Cysteine by Complexation Process Using Iron(III) and Nitrogen Chelate Organic Ligands DPKTH and Ferrozine
1991 – 1995	Bachelor of Chemistry Department of Chemistry, Science College, An-Najah National University, Nablus, Palestine. With very good average.
PERSONAL SKILLS	X-ray diffraction, Liquid-NMR spectroscopy (Bruker DRX 250 Spectrometer), CP/MAS solid-state NMR spectroscopy (Bruker DRX 200 and Bruker ASX 300 Spectrometer), FTIR spectroscopy (Bruker IFS 48 FTIR Spectrometer), Uv-visible spectrophotometer (2 year experience), Autoclave and parallel autoclave hydrogenation reactors, GC-MS and HPLC chromatography and columns packing techniques.
Computer Knowledge	Competent with most Microsoft Office, Chem.-office, and Origin-Lab programs with experience in HTML
Area of Research Interest	1- Ligand design and synthesis (chiral and achiral), asymmetric catalysts. Complexes (Kinetics, preparation and application, electrochemical studies that coupled with organometallic subjects. 2- Sol-Gel and surface modification immobilization. 3- HPLC chromatography packing and separation, Hybrid Inorganic and Organic Material to prepare novel RP-stationary phase, nanoparticle. 4- Nanoparticle synthesis and application. 5- Chemotherapy, synthesis and characterization novel organic and inorganic complexes then test their pharmaceutical activities. 6- Corrosion, synthesis material which behave good in stopping corrosion. 7- Solid state, solve structure of complexes by XRD and compare it with the theoretical DFT one
Patents	1- Saud Resayes, Ismail Warad, M. Iqbal Choudhary, Atia-tul-Wahab and Saima Rasheed, Heterocyclic Schiff's Bases as Novel and New Antiglycation Agents, US patent, 2014. USA2014/0221429A1. http://www.freepatentsonline.com/y2014/0221429.html 2- Nabil Al-Zekri, Ismail Warad, and others, Method of making palladium nanoparticles, US patent, 2018. No. 10016752. http://www.freepatentsonline.com/10016752.html 3- Nabil Al-Zekri, Ismail Warad, and others, Method of synthesizing (E)-1,2-di(pyridin-2-yl) ethene-1,2-diol, US patent, 2018. No. 10017474. http://www.freepatentsonline.com/10017474.html 4- Nabil Al-Zekri, Ismail Warad, and others, Sulfonamide Corrosion Inhibitors, US patent, 2019. No.33032.01. http://www.freepatentsonline.com/10494722.html 5- Ismail Warad, Abd Daraghmeh, Mohammed Al-Nuri, Abdelkader Zarrouk, Mohammad Mousa, Anas Al-Ali, Amjad M. Shraim, Method for synthesizing 1-(naphthalen-2-ylsulfonyl)-3-(thiophen-2-yl) diaziridine, USA Patent, 2020, Patent # 10,836,752. https://www.freepatentsonline.com/10836752.html 6- Yasser Hussein Issa Mohammed, Nabil Ahmed Qassim Al-Zeqri, Ali Mohammed Alsalmeh, Fahed Ahmed Ali Alharthi, Ismail Warad and others. The Ani-Angiogenesis Compounds, US patent, 2021. Application No.: 16/838,520, 2021. https://www.freepatentsonline.com/10954200.html 7- Atypical coupling method for the preparation of 1, 2-di (thiophen-2-yl) ethene-1, 2-diol compounds via a Cu(ii) catalyst, Ismail Warad, Amjad M. Shraim, Anas Al-Ali, Kifah SM Salih, Abdelkader Zarrouk, and Yousef Hijji, U.S. Patent Application 17/566,248,

	filed June 30, 2022. https://patents.google.com/patent/US20220204487A1/en 8- Method for the preparation of 1, 2-di(thiophen-2-yl) ethene-1, 2-diol compounds via a Cu(ii) catalyst, Ismail Warad, Amjad M. Shraim, Anas Al-Ali, Kifah SM Salih, Abdelkader Zarrouk, U.S. 718607B2, 2023. https://patents.google.com/patent/US11718607B2/en 9- Ismail Warad, and others, Method to synthesis mesoporous CuO material U.S. Patent Application No.: Filed, 2025 Accepted. 10- Ismail Warad, and others, Synthesis and anticancer activity of thiophene-3-carboxamide derivatives, U.S. Patent Application No.: Filed, 2025 under evaluation. 11- <u>A new process combining nanotechnology-magnetic for water treatment via desalination of Na⁺ to enhance irrigation efficiency in agriculture</u> U.S. Patent Application, submitted 2025. 12- <u>Development of dense, spongy membranes based on hydroxyapatite nanoparticles deposited on bioactive organic matrices for orthopedic and odontological applications</u>, U.S. Patent Application, submitted 2025. 13- <u>Method to prepare N-heterocyclic hexahydropyrimidine-dihalophenol anticancer agent</u>, U.S. Patent Application, submitted 2025.
Chapter in a Books	1- A. Zarrouk, H. Zarrok, R. Salghi, B. Hammouti, R. Touri, I. Warad, F. Bentiss, H. Abou El Makarim, N. Benchat, Quantum Chemical Study of Some Triazoles Compounds as Corrosion Inhibitors of Copper in Acid Media, Ch3, pp 30-44, Lap Lambert Academic publisher 2012. 2- A. Zarrouk, H. Zarrok, R. Salghi, B. Hammouti, M. Bouachrine, I. Warad, T. B. Hadda, Theoretical Investigation on the Corrosion Inhibition of Copper by Quinoxaline Derivatives in Nitric Acid Solution, Ch4, pp 45-60, Lap Lambert Academic publisher 2012.
2025	1- SC-XRD investigation of Oh dicationic $[Cu^{II}(Py_2C(OH)_2)_2]^{2+}$: A significant Jahn Teller distortion, 2D-S12/S9/S7 synthons, XRD/HSA-interactions, thermal, spectroscopic, anti-inflammatory and docking potential, Anas AlAli, Khalil Shalalin, Ahmed Abu-Rayyan, Hussien Khamees, Mohammad K. Al-Sadoon, Abdelkader Zarrouk, Mousa Al-Noaimi, Ismail Warad, Shaukath Ara Khanum, Journal Molecular Structure, 1323 (2025) 140749. https://doi.org/10.1016/j.molstruc.2024.140749. 2- Assessment of three quinolin-8-ol-imidazole hybrids as corrosion carbon steel inhibitors in acidic conditions employing practical and theoretical methodologies Z. Amrani, M. El Faydy, Z. Safi, N. Wazzan, A. Boutakiout, F. Benhiba, I. Warad, M. Rbaa, B. Lakhrissi, H. Oudda, Anees A. Khadom, A. Zarrouk, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 705 (2025) 135690. https://doi.org/10.1016/j.colsurfa.2024.135690 3- Biologically synthesized Tellurium/Zirconium bimetallic nanoparticles for antibacterial and electrochemical, Sindhu Devi, A. Muthuvel, S. Srinivasan, Nabil Al-Zaqri, Abeer A.

AlObaid, **Ismail Warad**, *Inorganic Chemistry Communications*, 172 (2025) 113606.
<https://doi.org/10.1016/j.inoche.2024.113606>

- 4- Maria Afzal, Zain Ashfaq, Tahir Iqbal, Sumera Afsheen, Ayesha Younas, Muhammad Farooq, Muhammad Yousaf, Rafa Almeer, **Ismail Warad**, Enhancing MB dye degradation and apple shelf life with Mn-doped ZnO nanoparticles: experimental and COMSOL simulation, *The European Physical Journal Plus*, 139 (2025) 1065.
<https://link.springer.com/article/10.1140/epjp/s13360-024-05844-2>
- 5- An investigation of benzothiazole ionic compound as corrosion inhibitor for carbon steel in acidic media using electrochemical research, surface techniques, DFT, and MD simulation studies, A. Barrahi, M.E.M. Mekhzoum, Abhinay Thakur, A.E. Kacem Qaiss, G. Kaichouh, M. El Faydy, F. Benhiba, B. Dikici, R. Bouhfid, Hatem A. Abuelizz, **I. Warad**, A. Zarrouk, *International Journal of Electrochemical Science* 20 (2025) 100917.
<https://doi.org/10.1016/j.ijoes.2024.100917>
- 6- Electrochemical, theoretical, and surface characterization of bis-Schiff-based corrosion inhibitors on carbon steel in HCl medium. Z. Amrani, A. Barrahi, Ahmed A. Farag, Abhinay Thakur, M. El Faydy, G. Kaichouh, Z. Safi, N. Wazzan, **I. Warad**, A. Zarrouk, *Colloids and Surfaces A*: 709 (2025) 136079. <https://doi.org/10.1016/j.colsurfa.2024.136079>
- 7- Assessment of three quinolin-8-ol-imidazole hybrids as corrosion carbon steel inhibitors in acidic conditions employing practical and theoretical methodologies, Z Amrani, M El Faydy, Z Safi, N Wazzan, A Boutakiout, F Benhiba, **I Warad**, M Rbaa, B Lakhrissi, H Oudda, Anees A Khadom, A Zarrouk, *Chemical Data Collections*, 56 (2025) 101181
<https://doi.org/10.1016/j.cdc.2025.101181>
- 8- Corrosion inhibition efficiency and adsorption mechanism of two dihydropyridazin-3(2H)-ones on carbon steel in hydrochloric acid medium: Experimental verification and theoretical analysis L. Chahir, A. Marzaq, N. Timoudan, M. El Faydy, F. Benhiba, D. Benmessaoud Left, M. Zertoubi, R. Saddik, S. Tighadouini, **I. Warad**, B. Dikici, M. Allali, A. Zarrouk, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 712 (2025) 136431.
<https://doi.org/10.1016/j.colsurfa.2025.136431>
- 9- A Detailed Experimental and Theoretical Evaluations of two Thiazolidine-2,4-Dione Derivatives as Corrosion Inhibitors for Carbon Steel in A Hydrochloric Acid Electrolyte, Latifa Chahir, Mohamed El Faydy, Fatima Zahra Tahri, Abhinay Thakur, Fouad Benhiba, Hatem A. Abuelizz, Driss Benmessaoud Left, Mustapha, Zertoubi, Mustapha Allali, **Ismail**

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- 10- A hydrazine-hydroxy-pyran-2-one derivatives as a potential anticancer and antibacterial agent: Synthesis, Spectroscopic, SC-XRD, DFT/TD-DFT, Hirshfeld surface analysis, in silico molecular docking and Nonlinear Optical responses studies, Messaoud Yahiaoui, Salima Tabti, Douniazed Hannachi, Amel Djedouani, Abdenour Guerraoui, Mouloud Laidoudi, **Ismail Warad**, Helen Stoeckli-Evans, Solenne Fleutot, Tahani Mazyad Almutairi, Mohammad Shahidul Islam, *Molecular Physics*, xxx (2025) xxx. <https://doi.org/10.1080/00268976.2024.2446686>
- 11- A new and effective organic imidazole derivative inhibitor for carbon steel protection in 1M HCl medium: electrochemical analysis and computer simulation, A. Barrahi, M. El Faydy, F. Benhiba, Heri Septya Kusuma, D.R. Bazanov, Natalia A. Lozinskaya, I. Warad, B. Dikici & A. Zarrouk, *Indian Chemical Engineer*, xxx (2025) xxx. <https://doi.org/10.1080/00194506.2025.2455972>
- 12- Assessment of the effectiveness of new both pyridazine derivatives as corrosion carbon steel inhibitors in 1 M HCl: Experimental, mathematical-statistical calculations and theoretical approaches, G. Laadam, N. Timoudan, A. Dahmani, S. Daoui, A. Thakur, H. A. Abuelizz, M. El Faydy, F. Benhiba, **I. Warad**, N. Benchat, A. A. Khadom, A. Zarrouk, *Canadian Metallurgical Quarterly*, xxx (2025) xxx. <https://doi.org/10.1080/00084433.2025.2463052>
- 13- Comparative study of the structure effect on the inhibition efficiency of three hydroxybenzylidene isonicotinohydrazide derivatives for corrosion carbon steel in a 1 M HCl solution: experimental and theoretical studies, K. Souabni, M. Oubaaqa, A. Barrahi, K. Rouzi, N. Er-rahmany, I. Warad, Hatem A. Abuelizz, M. Bouatia, K. Karrouchi, Elyor Berdimurodov, R. Touri, I. Eliboev & A. Zarrouk, *Canadian Metallurgical Quarterly*, xx (2025) xx. <https://doi.org/10.1080/00084433.2025.2450752>
- 14- Inhibitory performance of (E)-4-(3,4,5 trimethoxyphenyl)but-3-en-2-one crystal toward carbon steel corrosion in acid medium by practical and theoretical approaches Mohamed El Faydy, Nadia Timoudan, Asma Barrahi, Ahmed A. Farag, Abhinay Thakur, Heri Septya Kusuma, **Ismail Warad**, Brahim Lakhrissi, Ali Dafali & Abdelkader Zarrouk, *Journal of Dispersion Science and Technology*, xx (2025) xx, <https://doi.org/10.1080/01932691.2025.2462698>
- 15- Corrosion mitigation properties of new imidazole derivative for acid pickling of C35E steel via experimental and theoretical studies, A. Barrahi, M. El Faydy, L. Adlani, F. Benhiba, G. Kaichouh, D.R. 6 Bazanov, Natalia A. Lozinskaya, M. Maatallah, M. El Hezzat , **I. Warad**,

2024

- 1- Synthesis and Characterizations of a Novel trans-Pd(O,N)₂ complex with an AZO-dye ligand: Crystal Structure, theoretical studies and DNA binding interactions Souheyla Chetioui, Zineb Fellahi, Amel Djedouani, Jean-Pierre Djukic, Abeer A. AlObaid, Khalil Shalalin, Anas AlAli, Nidal Jaradat, **Ismail Warad**, *Scientific African*, 26 (2024) e02411. <https://doi.org/10.1016/j.sciaf.2024.e02411>
- 2- Spectral, crystal structure of novel Pyran-2-one Zwitterion Schiff derivative: Thermal, Physicochemical, DFT/HSA-interactions, enol $\leftrightarrow$ imine tautomerization and anticancer activity Salima Tabtia, Djouhra Aggoun, Diaa Aref, Ashraf Sawafta, Amel Djedouanif, Ahmed Abu-Rayyan, Abeer AlObaid, Jerome Lhoste, Carine Robert, Sandy Augste, Khalil Shalalin, **Ismail Warad**, *Journal Molecular Structure* 1310 (2024) 138258. <https://doi.org/10.1016/j.molstruc.2024.138258>
- 3- Synthesis of novel bi-Zwitterion Schiff base derivat from 4-hydroxy-2H-pyran-2-one: DFT/HSA-interactions, thermal, physicochemical, TD-DFT and optical activity Tinhinane LOUAILECHE, Salima TABTI, Amel DJEDOUANI, Khalil SHALALIN, Abeer ALOBAID, Chaima MAOUCHE, Douniazed HANNACHI, Samra AMAMRA, Aur'elien CROCHET, Helen STOECKLI-EVANS, **Ismail WARAD**, *Journal of Molecular Structure* 1312 (2024) 138351. <https://doi.org/10.1016/j.molstruc.2024.138351>
- 4- Synthesis, XRD/HSA-interactions, synthon, TD-DFT/optical analysis, docking and antibacterial evaluation of two ($\pm$)-Isoflavonoid derivatives, Nawaf Al-Maharik, Malak Daqqa, Abeer AlObaid, Lubna Abdallah, Abdelkader Zarrouk, Anas AlAli, **Ismail Warad**, *Journal of Molecular Structure*, 1313 (2024) 138700, <https://doi.org/10.1016/j.molstruc.2024.138700>
- 5- Synthesis of a Family of Pd(II) Complexes Using Pyridyl-Ketone Ligands: Crystal Structure, Thermal, Physicochemical, XRD/HSA, Docking, and Heck Reaction Application, Anas AlAli, Khalil Shalalin, Abeer AlObaid, Khaled Alkanad, Abdelkader Zarrouk, **Ismail Warad**, and Shaukath Ara Khanum, *ACSOmega*, 23 (2024) 25073. <https://doi.org/10.1021/acsomega.4c02015>
- 6- Synthesis, Jahn-Teller labeled via crystal structure in trans-(ClO₄)₂CuII(Me₂N-Py)₄ complex: S₉/S₆/C-H...O synthons, thermal, physicochemical and 1BNA-docking A. AlAli, A. AlObaid, B.S. Chethan, K. Shalalin, N. Alzeqri, K. Alkanad, N.K. Lokanath, A. Zarrouk, I. Warad, S.A. Khanum, *Journal King Saud University-Science* 36 (2024) 103302. <https://doi.org/10.1016/j.jksus.2024.103302>

- 7- Evaluating the Efficacy of synthesized Quinoline Derivatives as Corrosion Inhibitors for Mild Steel in Acidic Environments: An Analysis Using Electrochemical, Computational, and Surface Techniques, Khadija Dahmani, Mouhsine Galai, Mohamed Rbaa, Adil Ech-Chebab, Nordine Errahmany, Lei Guo, Abeer A. AlObaid, A. Hmada, **I. Warad**, *Journal of Molecular Structure*, 1295 (2024) 136514. <https://doi.org/10.1016/j.molstruc.2023.136514>
- 8- Enhancing Photocatalytic Activity: Investigating the Synthesis and Characterization of BiVO₄/Cu₂O/graphene Ternary Nanocomposites Maira Liaqat, Tahir Iqbal, Iqra Maryam, Khalid Nadeem Riaz, Sumera Afsheen, Muhammad Sohaib, Nabil Al-Zaqri, **Ismail Warad**, *Journal of Photochemistry & Photobiology, A: Chemistry* 441 (2024) 115122. <https://doi.org/10.1016/j.jphotochem.2023.115122>
- 9- Surface analysis and interface properties of a newly synthesized quinoline-derivative corrosion inhibitor for mild steel in acid pickling bath: Mechanistic exploration through electrochemical, XPS, AFM, contact angle, SEM/EDS, and computational studies Galai, M, K. Dahmani, O. Kharbouch, M. Rbaa, N. AlZaqri, Lei Guo, Abeer AlObadi, A. Hmada, N. Dkhireche, E. Ech-chihbi, M. Ouakki, **I. Warad**, *Journal of Physics and Chemistry of Solids*, 184 (2024) 111681. <https://doi.org/10.1016/j.jpcs.2023.111681>
- 10- Synthesis, optimization, DFT/TD-DFT and COX/LOX docking of new Schiff base N'-((9-ethyl-9H-carbazol-1-yl)methylene)naphthalene-2-sulfonohydrazide, Ahmed Abu-Rayyan, Khalil Shalalin, Mohammed Suleiman, Abed Daraghme, Anas Al Ali, Nawal Aljayyousi, Abdelkader Zarrouk, Mohammad Almaqashah, Ismail Warad, Ashraf Sawafta, *Mor. J. Chem.*, 12 (2024) 78-88. <https://doi.org/10.48317/IMIST.PRSM/morjchem-v12i1.43440>
- 11- Forecasting and meta-features estimation of wastewater and climate change impacts in a coastal region using manifold learning, E. B. Priyanka, S. Vivek, S. Thangavel, V. Sampathkumar, N. Al-Zaqri, **I. Warad**, *Environmental Research*, 240 (2024) 117355. <https://doi.org/10.1016/j.envres.2023.117355>
- 12- Evaluating the Efficacy of synthesized Quinoline Derivatives as Corrosion Inhibitors for Mild Steel in Acidic Environments: An Analysis Using Electrochemical, Computational, and Surface Techniques Khadija Dahmani, Mouhsine Galai, Mohamed Rbaa, Adil Ech-Chebab, Nordine Errahmany, Lei Guo, Abeer A. AlObaid, A. Hmada, **I. Warad**, *Journal of Molecular Structure*, 1295 (2024) 136514. <https://doi.org/10.1016/j.molstruc.2023.136514>
- 13- Investigate the effect of ZnO/Bi₂O₃ nanocomposite: A synergistic versatile approach for biomedical and environmental applications Maira Liaqat, Abdul Basit, Tahir Iqbal, Sumera Afsheen, Iqra Maryam, Ayesha Younas, Rana Rashad Mahmood Khan, Nabil Al-Zaqri, **Ismail Warad**, *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 681 (2024) 132773. <https://doi.org/10.1016/j.colsurfa.2023.132773>
- 14- Investigation of the mechanisms and adsorption of a new pyrazole derivative against corrosion of carbon steel in hydrochloric acid solution: Experimental methods and theoretical calculations, N. Timoudan, A. Titi, M. El Faydy, F. Benhiba, R. Touzani, **I. Warad**, A. Bellaouchou, Ali Alsulmi, B. Dikici, F. Bentiss, A. Zarrouk, *Colloids and Surfaces A: Phys. and Eng. Aspects* 682 (2024) 132771. <https://doi.org/10.1016/j.colsurfa.2023.132771>

- 15- Study of the physicochemical and microbiological quality of water from River innaouene, Fiouz Abderrahim, Chakiri Said, Najem Ayoub, El Hezzat Mounir, Ben Abbou Mohamed, Lamni Abderrahim, Chibani Abdelkader, Aouji Marouane, **Ismail Warad**, Zarrouk Zarrouk, *Ecological Engineering & Environmental Technology* (EET) 25 (2024) 254. <https://doi.org/10.12912/27197050/176495>
- 16- Facile hydrothermal synthesis of Cu-doped MoS₂ nanomaterial: a potential photocatalyst for degradation of MB dye, T. Iqbal, M. A. Jameel, M. Farooq, M. S. Mansha, S. Afsheen, N. Al-Zaqri, A. El-marghany, **Ismail Warad**, *Optical and Quantum Electronics*, 56 (2024) 1. <https://link.springer.com/article/10.1007/s11082-023-05759-9>
- 17- Insights into the Corrosion Inhibition Potential of *Chenopodium ambrosioides* Extract for Copper in Molar HCl Medium, N. Benzbiria, S. Echihi, A. Thoume, **I. Warad**, A. Zarrouk, D. Chebabe, D. Benmessaoud Left, M. Azzi1, M. Zertoubi, *Journal of Bio- and Tribo-Corrosion* 10 (2024) 10. <https://doi.org/10.1007/s40735-023-00815-z>
- 18- Hindering Corrosion of Carbon Steel in the Hydrochloric Medium by a Newly Synthesized Quinolines: Experimental and Computational Approaches, H. Fakhry, M. El Faydy, F. Benhiba, M. Rbaa, M. Allaoui, **I. Warad**, B. Lakhrissi, H. Oudda, A. Zarrouk, *Journal of Bio- and Tribo-Corrosion* (2024) 10:11 <https://doi.org/10.1007/s40735-023-00814-0>
- 19- Efficient Synthesis and Characterization of Novel BiVO₄/ZnO/graphene Composites to Study Enhanced Photocatalytic Activity for Organic Pollutant Degradation, Maira Liaqat, Sayyam Ahsan, Tahir Iqbal, Sumera Afsheen, Rana Rashad Mahmood Khan, Nabil Al-Zaqri, Adel E.M. Yahya and **Ismail Warad**, *Journal of Physics D: Applied Physics*, 57 (2024) 1. <https://doi.org/10.1088/1361-6463/ad14bc>
- 20- Geometrical Optimization of TiO₂-Noble Metal Grating for Enhanced Photocatalytic Activity and SPR Biosensor Application. Tahir Iqbal, Munazzam Ali, Sayyam Ahsan, Sumera Afsheen, Muhammad Farooq, Adel El-marghany & **Ismail Warad**, *Plasmonics* (2024). <https://doi.org/10.1007/s11468-024-02198-4>
- 21- New Insights on the Corrosion–Erosion Behavior of 904L Stainless Steel in Phosphoric Acid Containing Impurities, S. Aftimi, Y. Kerroum, A. Guenbour, A. Bellaouchou, H. Idrissi, R. Boulif, N. Semlal, I. Warad, A. Zarrouk, *Journal of Bio- and Tribo-Corrosion* 10 (2024) 13 <https://doi.org/10.1007/s40735-024-00818-4>
- 22- Bio- Electro-Fenton Process: Application to the Antiviral Ribavirin Mineralization in Aqueous Medium, I. Haji, M. Shueai Yahya, L. Rachidi, **I. Warad**, A. Zarrouk, A. Talidi, M. El Karbane, G. Kaichouh, *Anal. Bioanal. Electrochem.* 16 (2024) 79-99. <https://www.doi.org/10.22034/abec.2024.710596>.
- 23- Impact of margins on groundwater quality in the province of Taza, Morocco, A. Fiouz, M. El Hezzat, S. Chakiri, A. Najem, A. Chibani, Z. Doudech, H. El gasmi, I. Warad, N. Chahboun, A. Zarrouk, *International Journal of Chemical and Biochemical Sciences* (IJCBS), 25 (2024) 462-477. <https://www.iscientific.org/wp-content/uploads/2024/01/56-IJCBS-24-25-13-56.pdf>
- 24- Application of quercetin as a green inhibitor to prevent mild steel corrosion in the petroleum industry: Experimental and modelling techniques J. Saranya, K. Vagdevi, B. Jyothirmai, N. Anusuya, F. Benhiba, **I. Warad**, *Chemical Data Collections* 50 (2024) 101125, <https://doi.org/10.1016/j.cdc.2024.101125>

- 25- Synthesis and characterization of new eco-friendly vitreous system Bi₂O₃–B₂O₃–BaO: Structural, morphologic, and thermal analysis I. Saber a, K. Dahmani, M. Galai, A. EL Magri, R. Hsissou, H. Barbita, M. Belfaquir, I. Warad, N. AL-Zaqri g, M.S. Elyoubi, *Optical Materials* 149 (2024) 115079. <https://doi.org/10.1016/j.optmat.2024.115079>
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As supervisor	I supervised until now 3 Ph.D students, 18 master students; I was also examiner for more 50 graduate students.

projects	I performed more than 20 projects during my stay in KSA , now I have 2 projects running at NNU
Editor	I am editor for several international journals
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