

CURRICULUM VITAE

PERSONAL

Name: Nouredine BARKA
Date of birth: 20 March 1980, Safi, Morocco
Position: Professor
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Hay Ezzaïtouna, BP. 145 Khouribga.

EDUCATION

2008: Ph.D. degree in Chemistry, Faculty of Sciences, University Ibn Zohr, Agadir.
Thesis: Removal of Synthetic dyes by adsorption on natural rock phosphate
and by photocatalytic degradation using supported TiO₂.

POSITIONS HELD

Since September, 2010 Full professor in Environmental Chemistry, Polydisciplinary Faculty of
Khouribga, Morocco.
2008-2010 Teaching Assistant, Department of chemistry, University Cadi Ayyad,
Polydisciplinary Faculty of Safi, Morocco.

RESEARCH ACTIVITIES

- Organic and inorganic pollution remediation;
- Adsorption and heterogeneous photocatalysis;
- Synthesis and characterization of materials;
- Biomass valorisation.

PUBLICATIONS IN JOURNALS

105 scientific publications in the fields of heterogeneous photocatalysis, adsorption and biosorption
H-index: 26, Total citations: >2400 (Scopus)

EDITION SERVICES

- Editor of Journal of Applied Surfaces and Interfaces (IMIST-CNRST).
- Member of editorial Board of Journal of Composite Science (MDPI).

REVIEWER FOR JOURNALS

Reviewer in many scientific journals published by prestigious publishers:

- Journal of the Taiwan institute of Chemical Engineering (Elsevier)
- International Journal of Biological Macromolecules (Elsevier)
- Fuel (Elsevier)
- Journal of Electroanalytical Chemistry (Elsevier)
- Journal of Environmental Chemical Engineering (Elsevier)
- Environmental Science and Pollution Research (Springer)
- Water, Air, & Soil Pollution (Springer)
- Journal of the Iranian Chemical Society (Springer)
- Chemical Engineering Journal (Elsevier)
- International Journal of Phytoremediation (Taylor & Francis)
- Desalination and Water Treatment (Taylor & Francis)

- Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry ((Taylor & Francis))
- African Journal of Environmental Science and Technology Chemistry (Academic Journals).
- Arabian Journal of Chemistry (Elsevier)
- Journal of Environmental Chemistry and Ecotoxicology (Academic Journals)
- Desalination (Elsevier)
- International Journal of Environmental Analytical Chemistry (Taylor & Francis)
- Separation Science and Technology (Taylor & Francis)
- Journal of Hazardous Materials (Elsevier)
- Toxicological & Environmental Chemistry (Taylor & Francis)
- International Journal of Chemical Reactor Engineering (Bepress)
- Environmental Science & Technology (American Chemical Society)
- African Journal of Pure and Applied Chemistry (Academic Journals).
- Analytical Letters (Taylor & Francis)
- Journal of Industrial and Engineering Chemistry (Korean Society of Industrial and Engineering Chemistry)
- International Journal of Environmental Engineering (Inderscience)
- International Journal of Water Resources and Environmental Engineering (Academic Journals)
- Environmental Engineering and Management Journal (Gheorghe Asachi" Technical University of Iasi)

SCIENTIFIC PUBLICATIONS

- A. Oussama, F. Elabadi, N. Barka, F.Z. Mahjoubi, F. Kzaiber, Classification of the geographical origin of argan kernels by infrared spectroscopy and chemometrics, Egyptian Journal of Chemistry (2021), accepted.
- N. Taoufik, W. Boumya, A. Elhalil, M. Achak, M. Sadiq, M. Abdennouri, N. Barka, Gallic acid removal using fresh and calcined Ni-Al layered double hydroxides: Kinetics, equilibrium and response surface methodology (RSM) optimization, International Journal of Environmental Analytical Chemistry (2021), accepted.
- M. Farnane, A. Machrouhi, M. Khnifira, M. Barour, R. Elmoubarki, S. Qourzal, H. Tounsadi, N. Barka, Zinc chloride activation of carob shells for heavy metals removal from water: Statistical optimization, characterization and isotherm modeling. International Journal of Environmental Analytical Chemistry (2021), accepted.
- W. Boumya, N. Taoufik, M. Achak, N. Barka, Chemically modified carbon-based electrodes for the determination of paracetamol in drugs and biological samples, Journal of Pharmaceutical Analysis (2021), accepted.
- M. Khnifira, A. Mahsoun, M.E. Belghiti, L. Khamar, M. Sadiq, M. Abdennouri, N. Barka, Combined DFT and MD simulation approach for the study of SO₂ and CO₂ adsorption on graphite (111) surface in aqueous medium. Current Research in Green and Sustainable Chemistry 4 (2021) 100085.
- N. Taoufik, W. Boumya, M. Achak, M. Sillanpää, N. Barka, Comparative overview of advanced oxidation processes and biological approaches for the removal pharmaceuticals, Journal of Environmental Management 288 (2021) 112404.
- Alberto V. Puga, N. Barka, M. Imizcoz, Simultaneous H₂ production and bleaching via solar photoreforming of model dye-polluted wastewaters on metal/titania, ChemCatChem 13(6) (2021) 1513-1529.
- M. Sadiq, A. Elhalil, M. Abdennouri, N. Barka, M. Bensitel, C. Lamonier, Effect of aluminium incorporation on physicochemical properties and patent blue V photodegradation of magnesium phosphate materials. Bulletin of Materials Science 44 (2021) 58.
- W. Boumya, M. Khnifira, A. Machrouhi, M. Abdennouri, M. Sadiq, M. Achak, G. Serdaroğlu, S. Kaya, S. Şimşek, N. Barka, Adsorption of Eriochrome Black T on the chitin surface: experimental study, DFT calculations and molecular dynamics simulation, Journal of Molecular Liquids 331 (2021) 115706.

- M. Khnifira, A. Mahsoun, M.E. Belghiti, L. Khamar, HF and SiF₄ adsorption on carbon graphite (111) surface in aqueous medium: a combined DFT and MD simulation approach, *Materials Today: Proceeding* 37(3) (2021) 3987-3993.
- M. El-Abboubi, N. Taoufik, F.Z. Mahjoubi, A. Oussama, F. Kzaiber, N. Barka, Sorption of methyl orange dye by dodecyl-sulfate intercalated Mg-Al layered double hydroxides. *Materials Today: Proceeding* 37(3) (2021) 3894-3897.
- R. Elmoubarki, W. Boumya, F.Z. Mahjoubi, A. Elhalil, M. Sadiq, N. Barka, Ni-Fe-SDS and Ni-Fe-SO₄ layered double hydroxides: preparation, characterization and application in dyes removal. *Materials Today: Proceeding* 37(3) (2021) 3871-3875.
- W. Boumya, M. Khnifira, A. Machrouhi, M. Abdennouri, M. Achak, S. Qourzal, H. Tounsadi, N. Barka, Box–Behnken design for the understand of adsorption behaviors of cationic and anionic dyes by activated carbon, *Desalination and Water Treatment* 212 (2021)204-211.
- M. Achak, S. Bakri Alaoui, Y. Chhiti, F.E. M'hamdi Alaoui, N. Barka, W. Boumya, SARS-CoV-2 in hospital wastewater during outbreak of COVID-19: A review on detection, survival and disinfection technologies, *Science of the Total Environment* 761 (2021) 143192.
- W. Boumya, N. Taoufik, M. Achak, H. Bessbousse, A. Elhalil, N. Barka, Electrochemical sensors and biosensors for the determination of diclofenac in pharmaceutical, biological and water samples, *Talanta Open* 3 (2021) 100026.
- M. Khnifira, W. Boumya, M. Abdennouri, M. Sadiq, M. Achak, G. Serdaroğlu, S. Kaya, S. Şimşek, N. Barka, A combined molecular dynamic simulation, DFT calculations, and experimental study of the Eriochrome Black T dye adsorption onto chitosan in aqueous solutions, *International Journal of Biological Macromolecules* 166 (2021) 707-721.
- M. Farnane, A. Machrouhi, M. Khnifira, M. Barour, R. Elmoubarki, M. Abdennouri, H. Tounsadi, S. Qourzal, N. Barka, Facile nitric acid activation of carob seeds for efficient recovery of heavy metals from water, *Desalination and Water Treatment* 204 (2020) 174-188.
- A. Machrouhi, W. Boumya, M. Khnifira, M. Sadiq, M. Abdennouri, A. Elhalil, H. Tounsadi, S. Qourzal, N. Barka, Synthetic dyes adsorption and discoloration of a textile wastewater effluent by H₃PO₄ and H₃BO₃ activated *Thapsia transtagan*a biomass. *Desalination and Water Treatment* 202 (2020) 435–449.
- S. El Hamidi, M. Khnifira, E.M. Lemdek, R. Hammal, N. Barka, M. Sadiq, A. Benharref, A. Chekroun, H. Zgou, M. Abdennouri, Understanding the mechanism and selectivities of the reaction of meta-chloroperbenzoic acid and dibromocarbene with β -himachalene. A DFT study. *Heteroatom Chemistry* (2020) Art. 8885991.
- M. Assimedine, M. Abdennouri, N. Barka, E. Rifi, M. Sadiq, Physicochemical characterization of Moroccan natural clays and the study of their adsorption capacity for the methyl orange and methylene blue removal from aqueous solution, *Journal of Environmental Treatment Techniques* 8(4) (2020) 1258-1267.
- N. Taoufik, W. Boumya, F.Z. Janani, A. Elhalil, F.Z. Mahjoubi, N. Barka, Removal of emerging pharmaceutical pollutants: A Systematic Mapping Study review, *Journal of Environmental Chemical Engineering* 8 (2020) 104251.
- M. Khnifira, S. El Hamidi, A. Machrouhi, A. Mahsoun, W. Boumya, H. Tounsadi, F.Z. Mahjoubi, M. Sadiq, N. Barka, M. Abdennouri, Theoretical and experimental study of the adsorption characteristics of Methylene Blue on titanium dioxide surface using DFT and Monte Carlo dynamic simulation. *Desalination and Water Treatment* 190 (2020) 393–411.
- S. El Hamidi, W. Boumya, R. Hammal, M. Moumou, A. Ben Naji, M. Sadiq, A. Chekroun, A. Benharref, N. Barka, M. Abdennouri, A regio- and stereoselectivity and molecular mechanism study on the addition reactions of morpholine and m-CPBA to 9 α -hydroxyparthenolide using DFT calculations. *Mediterranean Journal of Chemistry* 10(5) (2020) 527-538.
- A. Moufti, M. Taoufik, R. Elmoubarki, A. Abouzaid, A. Lamsalmi, N. Barka, A survey of teaching of scientific awakening in Moroccan rural primary schools. *American Journal of innovative Research & Applied Sciences* 11(1) (2020) 81-88.

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- F.Z. Mahjoubi, A. Khalidi, A. Elhalil, N. Barka, Characteristics and mechanisms of methyl orange sorption onto Zn/Al layered double hydroxide intercalated by dodecyl sulfate anion. *Scientific African* 6 (2019) e00216.
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- N. Vrinceanu, R.M. Hlihor, A.I. Simion, L. Rusu, I. Fekete, N. Barka, L. Favier, New evidence on the enhanced elimination of a persistent drug used as lipid absorption inhibitor by advanced oxidation with UV-A and nanosized catalysts. *Catalysts* 9 (2019) 761.
- S. El Hamidi, M. Khnifira, A. Elhalil, R. Hammal, N. Barka, M. Sadiq, A. Benharref, H. Lafridi, H. Zgou, M. Abdennouri, A theoretical study of regio and stereoselectivity nitration of thymol and carvacrol using DFT approach. *Moroccan Journal of Chemistry* 7(2) (2019) 363-372.
- H. Tounsadi, A. Khalidi, M. Farnane, A. Machrouhi, A. Elhalil, N. Barka. Efficient removal of heavy metals by KOH activated *Diplotaxis harra* biomass: experimental design optimization, *Environmental Engineering and Management Journal* 18 (3) (2019) 651-664.
- A. Elhalil, R. Elmoubarki, M. Farnane, A. Machrouhi, F.Z. Mahjoubi, M. Sadiq, S. Qourzal, M. Abdennouri, N. Barka, Novel Ag-ZnO-La₂O₂CO₃ photocatalysts derived from LDH structure with excellent photocatalytic performance for the degradation of pharmaceutical compounds. *Journal of Science: Advanced Materials and Devices* 4(1) (2019) 34-46.
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- S. Akazdam, M. Chafi, L. Sebbahi, R. Benchekroune, B. Gourich, N. Barka. Decolourization of acid orange 7 dye from aqueous solution by adsorption on NaOH treated eggshells in continuous fixed bed reactor application using response surface methodology: optimization by Box–Behnken design, *Moroccan Journal of Chemistry* 6(4) (2018) 736–751.
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- A. Elhalil, M. Farnane, A. Machrouhi, F.Z. Mahjoubi, R. Elmoubarki, H. Tounsadi, M. Abdennouri, N. Barka. Effect of molar ratio and calcination temperature on the adsorption performance of Zn/Al layered double hydroxide nanoparticles in the removal of pharmaceutical pollutants. *Journal of Science: Advanced Materials and Devices* 3(2) 2018 188-195.
- A. Elhalil, R. Elmoubarki, M. Farnane, A. Machrouhi, F.Z. Mahjoubi, M. Sadiq, S. Qourzal, N. Barka, Synthesis, characterization and efficient photocatalytic activity of Ca/ZnO-Al₂O₃ nanomaterial, *Materials Today Communications* 16 (2018) 194-203.
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- M. Farnane, A. Elhalil, A. Machrouhi, F.Z. Mahjoubi, M. Sadiq, M. Abdennouri, S. Qourzal, H. Tounsadi, N. Barka. Enhanced adsorptive removal of cationic dyes from aqueous solution by chemically treated carob shells. *Desalination and Water Treatment* 100 (2017) 204-213.
- A. Elhalil, R. Elmoubarki, M. Sadiq, M. Abdennouri, Y. Kadmi, L. Favier, N. Barka. Enhanced photocatalytic degradation of caffeine as a model pharmaceutical pollutant by Ag-ZnO-Al₂O₃ nanocomposite. *Desalination and Water Treatment* 94 (2017) 254-262.
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