



**EMADAK Alphonse, PhD**

Senior Lecturer

University of Yaounde I

Department of Inorganic Chemistry

e-mail : emadak@gmail.com / aemadak@uy1.uninet.cm

H index (Web of Science): 2

**Current position:** Senior Lecturer

**Expertise:** Computational Chemistry, Molecular Topology, Quantum Chemistry, Environmental Chemistry and Radio Chemistry.

Alphonse Emadak is a quatochemist who holds a PhD in Physical and theoretical Chemistry of the University of Yaounde I since 2006. He is Senior Lecturer at the Department of Inorganic Chemistry of the same University from 2008 until today. He is working on stereoisomerism of various molecular structures using graph theory, group theory and combinatorics. Using computational tools, he carries out in depth analysis of the energy profile of molecular families as well as their categorization according to various physicochemical properties. Dr Emadak works also on research topics regarding environment in relation with his involvement in the development of infrastructures such as Dams. Having being IAEA consultant, Dr Emadak is also a radiochemist specialized in Radiatioprotection. He is the author and coauthor of many scientific articles related to various scientific research fields.

**Selected Peer reviewed publications**

1- R. M. Nemba, **A. Emadak**, C. E. Nemba, Combinatorial Enumeration of Stereo and Position Isomers of Homopolysubstituted Derivatives of [n,m] Paracyclophanes (Part I: n=m), Communications in Mathematical and in Computer Chemistry, 69 (2), **2013**; 355-369.

- 2-** Patouossa Issofa, **A. Emadak**, R. M. Nemba, Combinatorial Enumeration and Symmetry Characterization of Homopolysubstituted [3,3] Paracyclophane Derivatives, *Acta Chim. Pharm. Indica*, 3(3), **2013**, 201-211.
- 3-** R. M. Nemba, **A. Emadak**, C. E. Nemba, Combinatorial Enumeration of Stereo and Position Isomers of Homopolysubstituted Derivatives of [n,m] Paracyclophanes (Part II:  $n \neq m$ ), *Communications in Mathematical and in Computer Chemistry*, 69 (2), **2013**; 371-388.
- 4-** R. M. Nemba, **A. Emadak**, C. E. Nemba, Algorithm for Direct Combinatorial Enumeration of Chiral and Achiral graphs of Homopolysubstituted Diamantane derivatives, *J. Chem. Bio. Phy. Sci. Sec. C*, 3 (3), **2013**; 2130-2140.
- 5-** A. Tiya-Djowe, P. N. Lemougna, **A. Emadak**, M. Pitap-Mbowou, S. Laminsi, U. Chinje-Melo. Taking advantage of iron contained in natural volcanic ash for catalytic degradation of Rhodamine 6G, *J. Appl. Surf. Interface*, 3 (1-3), **2018**, 10-16.
- 6-** **A. Emadak**, I. Patouossa, W. S. Tchoutezo, New Compounds Derived from Stereoisomers of 2,4-Diphenylcyclobutane-1,3- Dicarboxylic Acids, 1,4-Diphenylcyclobutane-2,3-Dicarboxylic Acids and their Alkaloidal Precursors, The Truxillines: Theoretical Elucidation Based on Pólya's Counting Theory. *Int. J. Chem. Sci.*, 17(1), **2019**, 1-9.
- 7-** **A. Emadak**, R. M. Nemba, I. Patouossa, I. M. Ndassa, B. T. Makon, Enumeration of stereoisomers of chiral and achiral derivatives of monocyclic cycloalkanes having heteromorphous alkyl substituents with the same length k, *Int. J. Chem. Sc.*, 3(3), **2019**, 43-53.
- 8-** **A. Emadak**, R. M. Nemba, L. T. Djoumessi, J. C. Epée, Enumeration of Kekule structures of polyhex monoradical having only zig-zag assemblies of benzenoid hydrocarbons, *Int. J. Chem. Sc.*, 3(3), **2019**, 25-31.
- 9-** **A. Emadak**, R. M. Nemba, L. T. Djoumessi, J. C. Epée, Enumeration of Kekule structures of polyhex monoradical having only linear assemblies of benzenoid hydrocarbons, *Sci. J. Chem.*, 7(3), **2019**, 56-61.
- 10-** **A. Emadak**, I. M. Ndassa, B. T. Makon, I. Patouossa, R. M. Nemba, Enumeration of stereoisomers of chiral and achiral derivatives of monocyclic cycloalkanes having heteromorphous alkyl substituents with distinct length k, *Comp. Chem.*, 7, **2019**, 72-93.
- 11-** **Emadak A.**, Nsangou T., Towa A., Chanudet V., Dermarty M., Deblois C., Simard J. D., "Greenhouse gas emissions from the reservoir of the Lom Pangar hydroelectric dam (Cameroon)", *Proceedings, International Hydro Conference AFRICA 2019*, Windhoek, Namibia.
- 12-** **Emadak A.**, Nsangou T., Towa A., Bell E., Ngouyamsa H. N., "Environmental and social management of the impoundment of the reservoir of the Lom Pangar hydroelectric dam: Water quality monitoring", *Proceedings, International Hydro Conference AFRICA 2019*, Windhoek, Namibia.