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Synthesis and characterization of symmetric triple decker complexes based on porphyrins (Po) and phthalocyanine (Pc) of earth rare (Ln) [(Po)Ln(Pc)Ln(Po)] for application in medical imaging

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Synthetic mixed triple decker complexes containing functionalized outer porphyrins and an inner phthalocyanine [(Po)Ln(Pc)Ln(Po)] where Ln=La, Eu, Gd were prepared and their spectroscopic properties were determined. These complexes were characterized by UV/Vis. spectroscopy, ¹H NMR and mass spectrometry. In the second part we have reported the different strategies of interporphyrin coupling and the appropriate method for obtaining the "cage" complex in which a phthalocyaninate ligand is encapsulated by two external porphyrinate ligands. These new nanomaterials could have important applications in medical imaging and phototherapy when the Gadolinium III is the central ion of the complex because of the high magnetic moment of the complex (Gd³⁺ is seven f single electrons). The different parameters that govern this kind of systems will be exposed and described.

Recent Publications

1. M Tahiri, M Laaouan, S Souabi, M A Aboulhassan. Impact of stabilized leachate residues from the uncontrolled landfill of Moham-

media city on the "Oued El Maleh" river and on the soil. J. Mater. Environ. Sci. 2017; 8(12): 4487-4495

2. Tahiri, S Souabi, K Touzar, H Chtioui, F Khalil, Kh Digua. Environment, engineering & development. 2010
3. Mohamed Tahiri, Souad Fettouche, Rachid Madhouni, Omar Cherkaoui. Removal of reactive dyes from aqueous solution by adsorption onto Alfa fibers powder. Journal of Materials and Environmental Science. 2015; 6(1): 129-137.

Speaker Biography

Mohamed Tahiri has received extensive training in Europe on innovation, technology transfer, intellectual property rights and innovation management. He holds in his faculty a bachelor on sanitation management in urban areas. He's conducting R&D in partnerships with various industries. He is awarded Hassan II Prize on environment in the year 2009 for his contribution to disseminate citizen eco initiatives in Moroccan university. He published over 40 general and research articles, organized international meetings and conferences in Morocco.

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