

18-018

Synthesis of Metalphthalocyanines from Kaolinite with potential for photodynamics therapy.

Frajuca, C.(1); Hirano, C.A.(2); Calefi, P.S.(2);
(1) IFSP-SPO; (2) IFSP;

The phthalocyanine synthesis is presented as well as the properties and functionalizations of kaolinite with tris (hydroxymethyl) aminomethane (KaTRIS), creating a new synthetic route for obtaining a metallophthalocyanine (MPc) from kaolinite. These materials are very promising for applications in photodynamic therapy (DTP), xerographic photoconductor machines, electrochromic display, dyes, photovoltaic materials in solar cells, light emitting diode manufacturing systems and various catalytic systems. As these compounds are planar, they can form aggregates in solution due to the π - π interactions between adjacent molecule orbitals. This property of the phthalocyanines has a great influence on the phototoxic efficiency of the drug.