# Photocatalytic Oxidation of Alcohols with Titanium(IV) Phthalocyanine bridged Periodic Mesoporous Organosilica

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PMOs (Periodic Mesoporous Organosilicas) are considered as one of the promising organic-inorganic hybridized materials due to their various and easy functionality as well as stability with commercially viable synthetic route. Moreover, fluorophore or chromophore such as phthalocyanine can lead a variety of applications. And metallophthalocyanine is even more applicable with high potency.
Titanium(Ⅳ) phthalocyanine bridged periodic mesoporous organosilica (TiPC-PMO) was successfully synthesized by co-condensation using bistriethoxysilylethane(BTE) and TiPc-silane under the microwave irradiation. And the TiPC-PMO was demonstrated in the VIS-photocatalytic oxidation of substritute benzyl alcohols by visible light which formed corresponding aldehydes, ketones and/or epoxides with considerably high activities.