

UV filtering and multifunctional hybridization of optical inorganic nanoparticles and metal complexes

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In order to develop UV filtering optical materials for cosmetology applications, we have prepared several multifunctional hybrid materials composed of titanium (IV) oxide particles (typical photo-catalyst) and optically active L-amino acid Schiff base copper (II) complexes. By photo-induced reactions between organic/inorganic hybrid dyes of copper (II) complexes and typical face powder materials, absorption of additional UV light could be observed successfully.