

PHOTOINDUCED MAGNETIZATION IN CORE-SHELL PRUSSIAN BLUE ANALOG HETEROSTRUCTURES

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We developed a method to build a layer of the ferromagnet $K_jNi_k[Cr(CN)_6]_l \cdot nH_2O$ over a core of the photoinducible ferrimagnet $Rb_jCo_k[Fe(CN)_6]_l \cdot nH_2O$. By depositing multiple shells of Prussian blue analogs, we are able to synthesize 3D heterostructures consisting of concentric layers of PBA on a pre-formed core. We obtain an heterostructure showing a decrease in upon irradiation with white light and an important increase in the ordering temperature of the photoinduced magnetism. The synthesis of particles with various shell thickness provides new insights on the pressure induced mechanisms giving rise to the decrease in magnetization.