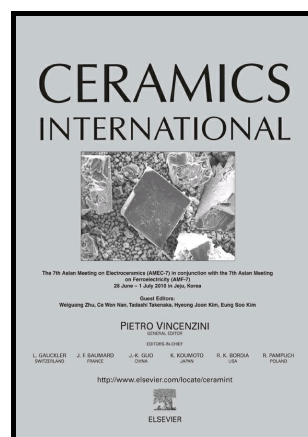


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# Synthesis of ultrathin carbon dots-coated iron oxide nanocubes decorated with silver nanoparticles and their excellent catalytic properties

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## Abstract

A facile ultrasonic method has been successfully developed for the fabrication of multifunctional Fe<sub>3</sub>O<sub>4</sub>@carbon dot/Ag (Fe<sub>3</sub>O<sub>4</sub>@C-dot/Ag) nanocubes (NCs), and the resulting materials are well characterized using transmission electron microscopy (TEM), X-ray diffraction (XRD), X-ray photoelectron spectroscopy (XPS), Fourier-transform infrared spectroscopy (FTIR), Vibrating sample magnetometer (VSM) and fluorescence measurements. The Ag nanoparticles (NPs) are uniform and well dispersed on the surface of Fe<sub>3</sub>O<sub>4</sub>@C-dot, while maintaining the shape and the

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