

Graphene Oxide: a new emerging contrast agent for Magnetic Resonance Imaging

Giulia FIORAVANTI - Department of Physical and Chemical Sciences, University of L'Aquila

Magnetic resonance imaging (MRI) is an attractive non-invasive imaging technique broadly applied to image tissues in a qualitative or quantitative manner with excellent spatial resolution, but low sensitivity. MRI contrast agents (CAs) have been actively explored to enhance the relaxivities for improving the T1 or T2 contrast in clinical and preclinical imaging. This presentation focuses on the Graphene Oxide (GO)-based MRI CAs, a promising new class of two-dimensional agents.

Their efficacy can largely be modulated according to the GO oxidation degree, the presence of paramagnetic impurities in pristine materials, the enrichment of such materials with metallic ions, making them a new and interesting platform to manipulate the proton relaxivities.