Dr Carmine D’Agostino

School of Chemical Engineering and Analytical Science, The University of Manchester, UK

Nuclear Magnetic Resonance (NMR) is a powerful spectroscopic tool and has extensively been exploited in many fields of science and technology, most notably chemistry, biology and for medical purposes. In the past decades the application of NMR to problems relevant to the chemical and process industry has been constantly growing. This approach is non-invasive, non-destructive and chemically selective and is able to probe several important aspects of many physical and chemical systems, which, combined with other conventional characterisation tools, can reveal new insights into the behaviour of such systems. In this work, some of the methodologies and their applications to explore molecular dynamics and surface interactions of fluids in porous materials and catalysts are introduced and discussed.