CERIC

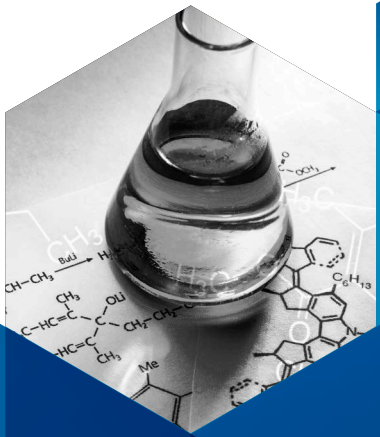
Central European
Research Infrastructure
Consortium

Open for
Industry

Chemical

Controlling structures at the micro- and nano-levels is essential for the chemical industry to develop new products and, at the same time, almost all chemical industries nowadays rely on development, selection and application of catalysts. CERIC Partner Facilities can offer their expertise on these key topics.

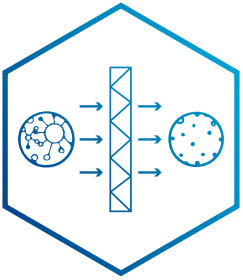
- Chemicals structures and dynamics
- Catalysts characterisation and behaviour
- Polymers, composites and ceramics



www.ceric-eric.eu

Chemicals structures and dynamics

CERIC can detect trace elements at high resolution, analyse the shape, size and density of nanoparticles, as well as determine the local structure, dynamics, reaction state and chemical environment within molecules. CERIC Partner Facilities offer support in the definition of surface and interface phenomena, obtaining morphological, chemical (elemental sensitivity) and magnetic properties with a resolution of a few dozen nanometres (e.g., in composites and clusters).



Catalysts characterisation and behaviour

Surface, interface and electronic properties and behaviour of catalysts can be analysed. Support in probing new catalysts at atomic level and the way properties of catalysts change during operation following the evolution of components is also offered. Moreover, CERIC supports understanding the diffusion behaviour of molecules in microporous materials for the design of separation membranes for catalysts.

Polymers, composites and ceramics

CERIC offers high precision analyses for understanding the composition, structure, properties, behaviour and interactions of modern smart materials, which can have a nanoscale structure (composites, ceramics, polymers, with or without nanofillers). CERIC defines aggregation and microstructural defects to solve issues related to material characteristics and the reasons why problems related to their functioning occur.