CERIC

Central European
Research Infrastructure
Consortium

Open for
Industry

Metal/Metallurgy

CERIC can support the study of intelligent multi-functional properties for metal components at nano and micro-scale to define new grades of metals and alloys with higher strength, formability and corrosion resistance.

- Microstructure characterisation and behaviour of metals and alloys
- Defects and damages

www.ceric-eric.eu

Microstructure characterisation and behaviour of metals and alloys

CERIC performs microstructural and morphological characterisation of nanostructured materials: defining the composition, crystal structure, texture, shape on the nanometric scale, aggregation and thermal behaviour through residual stress test and defects. CERIC can also follow the evolution of alloy composition and microstructure during operation and study the distribution of two-phase systems such as metal alloys.

Defects and damages

CERIC offers the analysis of inhomogeneity of casted materials, water uptake of solids, artefacts and machines, as well as dynamic measurements to follow time-dependant processes. CERIC can test the corrosion of metals applied in extreme conditions and the intolerance of shot blasting systems to metalworking fluids.