



# NOVITOM

Advanced Analytical and 3D-imaging Services

Combining high resolution and high energies

Ultimate analysis of metals, ceramics and high density materials

Composites & Plastics  
Food and Agro-products

**Metallurgy & Ceramics**

Cosmetics

Oil & Mining

Pharmaceuticals

Tissues and biomaterials

Wood, Paper & Textiles



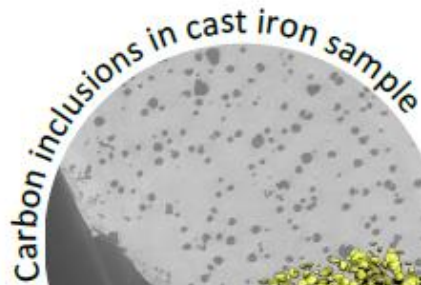
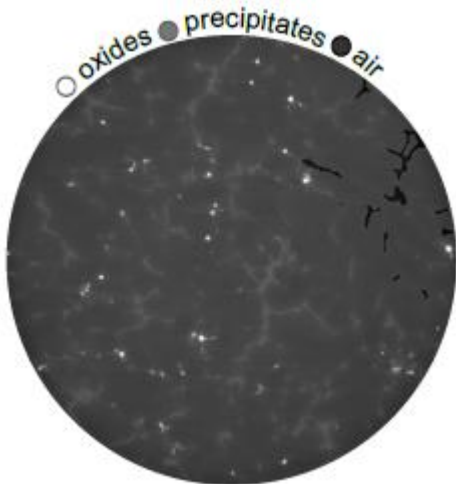
## Scan

- Metallic and alloy pieces
- Structural and White-ware ceramics
- Biomedical implants
- Coatings, Bearing, weldings
- Metal-ceramic composite materials
- Art objects



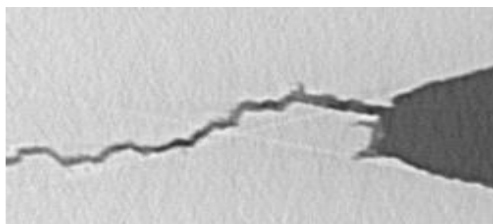
## Analyse

- 3D microscopy of micro-components
- 2D imaging of oxidation states
- Crystallinity, grain size, stress-strain,
- Identification of phases
- 3D analysis of inclusions, precipitates, porosity
- Morphology and quality of interfaces
- Failure analysis (cracks, voids, delamination)
- Microscopic effects of aging, fatigue, friction, stress, chemical or thermal treatments
- Real time *in situ* monitoring: temperature, mechanical stress



## Control

- Micro-structural parameters
- Cracks, failures
- Corrosion, contaminants
- Metalworking processes
- Fatigue and aging
- Micro-metrology of pieces



## Predict

- Influence of fillers on the quality of pieces
- Modelling micro-mechanical behaviour
- Failure propagation
- Relationship between microstructure and mechanical or physical properties

*NOVITOM is the first full-service provider to specialise in 3D micro-imaging and micro-analyses powered by synchrotron technology. Novitom's innovative techniques go way beyond standard laboratory methods and use advanced non-destructive characterization tools to reveal the inner micro-structure of materials and products, with an exceptional level of quality and detail.*

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