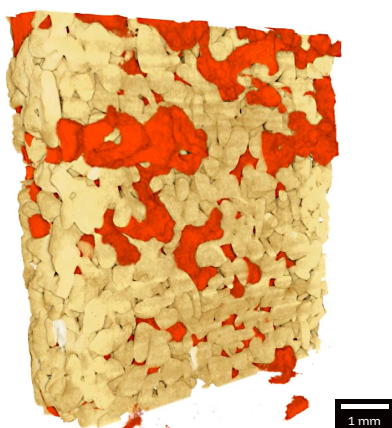


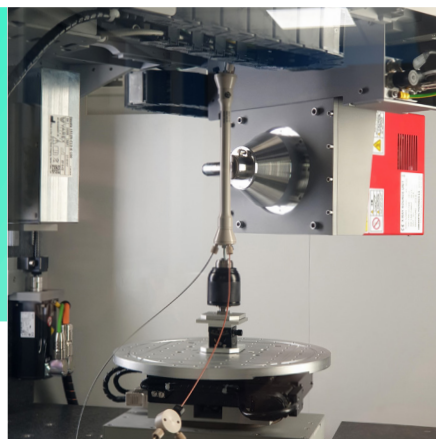
Tescan DynaTOM

for Materials Science and Earth Science

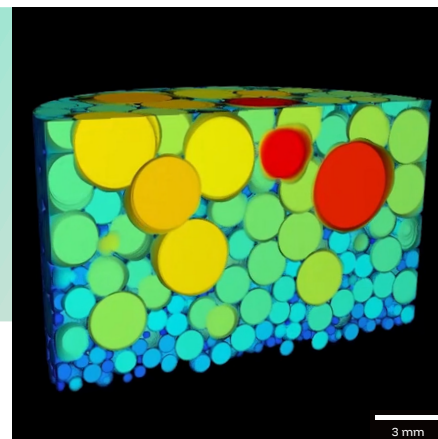
The world's only micro-CT system engineered
to tackle the most complex temporally resolved
3D in situ characterization challenges



Two-phase flow: oil (red) infiltration of brine saturated rock



DynaTOM with stationary flow cell experiment



Rapid coalescence of soap bubbles

Key benefits:

Validate simulations through complex 3D in situ experiments

A horizontally rotating source and detector allow complex in situ apparatus to be used without cable management issues. Dedicated in situ interfaces simplify the swapping of different experiments.

Perform uninterrupted temporally resolved “true 4D” imaging with dynamic CT

Continuous rotation of the source and detector enable uninterrupted data collection. A high frame rate detector and an industrial gantry enables very high scan rates, < 10 second temporal resolution.

Gain insights to the experiment as it is happening

“On-the-fly” reconstruction during the experiment reduces the number of iterations for a successful test. Unique temporal reconstruction techniques allow users to fully utilize the uninterrupted data achievable through dynamic CT.

Collect multi-scale image data

Large source and detector travel provides maximum flexibility for optimizing resolution, field of view, and flux. Volume of Interest Scanning (VOIS) is supported through the sample stage and simple navigation through the Panthera software platform.

Applications:

Uninterrupted tensile and compression studies of structural alloys and composite materials

Multi-phase fluid flow in porous media

Crack propagation and fracture mechanics in engineered materials, geological samples, and more

Hydration studies in porous materials, from geoscience to consumer products

Crystal growth and mineralization in geomaterials and construction materials

Freezing, melting, and heating cycles in materials science applications