RWTH AACHEN UNIVERSITY

EMR

Energy & Mineral Resources Group

EMR forms part of the Geoscience Department in the Faculty of Georesources & Materials Engineering at RWTH Aachen Univserity and is the largest university-based Group committed to Resources Research in Germany.

RESEARCH

Basin modeling
Petroleum systems; Sedimentary forward modeling

Carbonate sedimentology
Reservoir architecture & properties; Paleo-climate

Diagenesis
Integrated reservoir diagenesis; Carbonate diagenesis; Fracture sealing & vein formation

Discontinuities (faults, fractures, veins)
Smear & retention; 4-D analogue modeling; Recrystallization, microtectonics and fluid-rock interaction

Geomechanics
Numerical modeling; Borehole stability; Overpressure analysis

Geochemistry
Organic & Inorganic; Environmental geochemistry

Interface mineralogy
Surface processes in aqueous systems;
Clay-based materials for industrial usage

Mineral deposits
Ore body modeling; Ore system analysis

Petrology
Maturation & burial temperature; Mineral assemblages

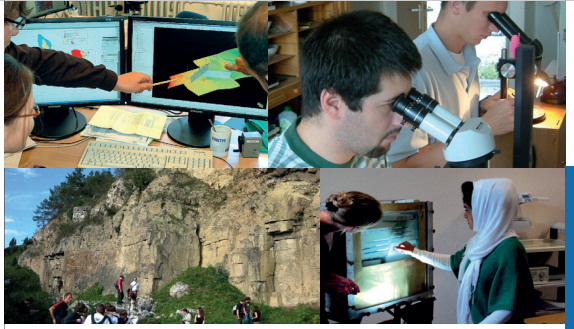
Petrophysics
Poro-Perm analysis; Rock properties & gas sorption

Salt
Salt & intra-salt structure, tectonics & dynamics; Evaporite properties

Seismic interpretation
Seismic geomorphology; Structural & reservoir models

Sequence stratigraphy
Log interpretation; Seismostratigraphic modeling

Unconventionals & new technologies
Coalbed methane & carbon dioxide sequestration; Tight gas; Gas shales



FACILITIES

Analogue modeling (e.g. sandbox)
BET gas adsorption
CBM & ECBM recovery
Cryo-SEM; BIB techniques
Element analysis (TIC, TOC, S, LA-ICP-MS, ICP-MS, ICP-OES)
Field analogue studies
Fluid inclusion measurements
GC-MS; LC-MS; GC-irmMS; Py-GC-MS
High-performance numerical modeling (FEM, DEM)
HP-HT cells; high pressure gas soprtion
Ion chromatography
Microscopy
Mixed flow reactor systems
Move®, GoCad®, ER Mapper®, GIS
PetroMod®
Particle image velocimetry (PIV)
Petrel®; Kingdom Suite®
Poro-Perm laboratories
Rock-eval pyrolysis
Sample preparation (polished sections)
Sonic logger
Streaming potential and zeta potential measurements
Triaxial cell
UV/VIS spectroscopy
XRD, 3D-XRD, XRF

ENERGY& MINERAL RESOURCES GROUP

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