OVERVIEW OF GFZ-ICGR ACTIVITIES ON GEOTHERMAL FLUIDS

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Workshop “Geochemistry of Geothermal Fluids”, Miskolc
Geothermal Energy at GFZ
International Centre for Geothermal Energy Geothermie Zentrum

**Holististic Approach**

- Geothermal fluids
- Rock physics
- Reservoir-engineering
- Wellbore monitoring
- Exploration
- Earth temperature field

- technology-development
- process understanding
- optimization

Power plant technology
GFZ – ICGR as partner or coordinator in current EU projects
Geothermal fluids

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Research Topics

Fluid Chemistry

Fluid Physics

Fluid Monitoring
Geochemistry at the ICGR

Goals

1. Chemical reactions during fluid processing → Scaling and corrosion
2. Environmental issues (toxic, radioactive compounds)
3. Scaling prevention strategies: inhibitors, enhanced & controlled precipitation
4. Prediction: geochemical modeling
5. Exploration: Information on fluid origin and temperature
Methods and instruments

- Labs with high pressure, high temperature devices e.g. FTIR with pT-cell, autoclaves with measurement probes (conductivity, pH, Eh, ultra sonic)
- Fluid monitoring (FluMo 1 and 2)
ICGR Activities

Cooperations/Networks, Projects/Partners, in preparation

 Alexis

Research platforms
ATES
Research well
Campus TU Berlin

Deep geothermal: Groß Schönebeck
Groß Schönebeck geothermal site

Fluid composition: 265 g/L TDS