

**Job Profile: Post Doctoral Scholar**  
**The Ohio State University**  
**Supervisor: Prof. David Cole, School of Earth Sciences**

**Job Description:**

We are seeking a Post Doctoral Scholar to join the School of Earth Sciences at The Ohio State University focused on subsurface earth materials. The Post Doctoral Scholar will embark on a program of independent research as part of a large multi-disciplinary, integrated Department of Energy funded project known as the Tri-State CO<sub>2</sub> Storage Hub. We seek a Rock Properties expert to complement the downhole logging and petrophysics team members. The primary interest is the capability to assess the permeability, porosity, mineralogy and lithofacies features of potential CO<sub>2</sub> storage formations and associated cap rocks.

Duties will include conducting laboratory and data synthesis efforts centered around:

- Use of different types of analytical instrumentation, including conventional (porosity, permeability, grain density) and special (mercury injection capillary pressures, nuclear magnetic resonance, whole core X-ray computed tomography, X-ray fluorescence and diffraction, etc.) core analysis.
- Ability to generate and quantify 3-D pore and fracture networks from core assessments.
- Familiarity with machine learning and AI technologies application to better constrain rock properties is a plus.
- Assist in rock properties data integration with downhole well logging and well testing team results.
- Lead manuscript preparation for submission to peer-reviewed journals.
- Mentor undergraduate and graduate students.

These required and desired skills should be demonstrated through a record of peer-reviewed publications.

**Qualifications:**

PhD in geology or a related field by the time of hire is required, along with a strong theoretical and practical background in quantitative rock core assessments. Alternate degree fields will be considered/accepted depending on the nature and depth of the experience as it relates to this position. Demonstrated experience operating and maintaining a variety of analytical rock properties instrumentation as outlined above (available mostly in the OSU Subsurface Energy Materials Characterization and Analysis Lab (SEMCAL)). The successful applicant should exhibit excellent verbal and written communication skills and possess a collaborative mentality towards research in a team environment and mentoring.

This position has not yet been posted in the OSU system. In the meantime, inquiries may be directed to Dr. David Cole ([cole.618@osu.edu](mailto:cole.618@osu.edu)). The position will remain open until filled. Start date is estimated as July 1, 2024.

The target hiring range is \$52,000-\$62,000 annual. The actual salary will be based on the applicant's qualifications, internal equity, and the unit's available budget. The initial appointment period is one year, with the opportunity for a second-year renewal.

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Responsibilities:

45% Conduct laboratory work centered around rock properties/petrophysics.

30% Process and analyze the data generated in lab and as part of the Tri-State Energy Hub.

20% Lead manuscript preparation for submission to peer-reviewed journals.

5% Mentor and work alongside undergraduate and graduate students working on similar projects; performs other duties as required.