



The
Geological
Society

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Call for abstracts – 30 March 2025

Natural Hydrogen: Understanding the Geoscience

1st - 2nd July 2025

Hybrid Event – The Geological Society, Burlington House, London & Virtual



An AI rendition of
natural hydrogen

Convenors:

Andy Barnicoat
NHSG

Eleanor Rollett
Tetra Tech RPS

Geoff Ellis
USGS

Ian Hutchinson
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Mike Daly
Oxford University
Snowfox Hydrogen

Mike Powney
GeoexMCG

Owain Jackson
H2Au

Tom Sandison
Shell

Natural hydrogen exploration has officially begun, with over 40 companies focussed on natural hydrogen exploration, and a dozen or more wells drilled in the search for hydrogen reserves. Additionally concerted research has begun into how geological hydrogen generation can be stimulated artificially. But what have we learned about the geology of hydrogen and how to exploit it?

Following on from the successful Energy Group natural hydrogen conference in 2023, this conference will focus on the developments in natural hydrogen geoscience, review the potential realised so far, and assess what uncertainties remain.

We invite abstracts on the following themes:

- **Natural Hydrogen Systems** – *Source*: potential yields, quantification, ideal protoliths; *Migration*: gas-phase v. solution, concentration v. dispersal; *Sealing & Entrapment*: Loss mechanisms (organic & non-organic), mixing & dilution, reservoir deliverability and energy, static vs dynamic.
- **Geological Hydrogen Stimulation** – ongoing research, cross overs between stimulated and natural hydrogen, sub-surface vs above ground stimulation, catalysts and low temperature activity
- **Technology & Data in Hydrogen Exploration** – new vs repurposed technology and data related to natural hydrogen, cross over between Mining, Storage and Oil & Gas datasets and techniques, new interpretation and processing approaches, remote sensing and hydrogen detection, application of AI.
- **Geotectonic Settings & Exploration Plays**: Geological make-up of natural hydrogen systems in different geotectonic settings from deep crystalline rocks to sedimentary basins, building play models and fairway analysis, screening, risking and ranking natural hydrogen targets, synergies with other transition geoscience subjects.
- **Exploration and Discoveries Case Studies**: Ongoing exploration projects, data and methodologies, results & forward plans, discoveries and plans for development.

Call for abstracts:

All submissions are to be made using the abstract submissions form <https://forms.office.com/e/gaCx4a2AaQ>

For further information please contact: energygroup@geolsoc.org.uk



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www.geolsoc.org.uk/energygroup