



## FLUIDIC SYSTEMS – TURNKEY MICROFLUIDIC SOLUTIONS

InspIOR<sup>®</sup>, our flagship microfluidic flooding device, and our transparent micromodels are the basis for our turnkey microfluidic solutions that include hardware and software components as well as chip design, flooding experiments and interpretation services.

### InspIOR<sup>®</sup> – A PROFESSIONAL MICROFLUIDIC FLOODING SYSTEM

Our InspIOR<sup>®</sup> microfluidic systems are built for ambient and reservoir condition IOR/EOR flooding experiments and environmental gases investigations (H<sub>2</sub> Storage, CCS, & UGS). These are operated via InspIOR Vision, a process control, visualisation and data management software, enabling efficient automated workflows.

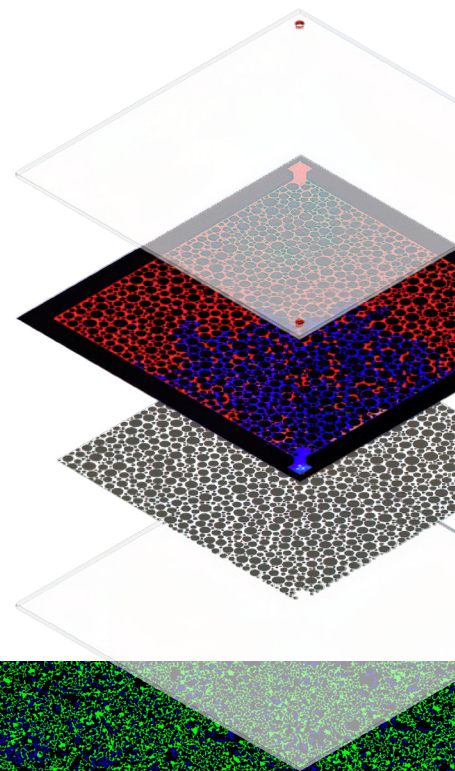
### OUR ROCK-ON-A-CHIP MICROMODELS ARE RESERVOIR ANALOGUES

#### WHY MICROFLUIDICS?

Our transparent glass-silicon-glass (GSG) micromodels are reservoir rock analogues fabricated by etching the porous structure of any reservoir material into silicon and allow:

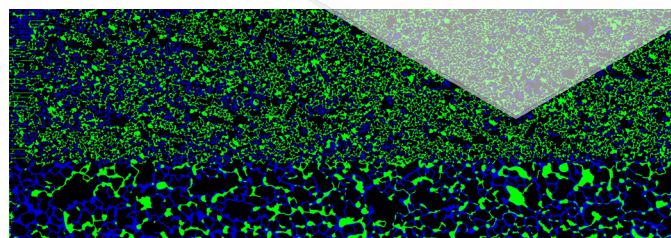
- ⌞ Time efficient and rapid experimental investigations
- ⌞ Full visual access and fast analysis tools to instantaneously compute saturations
- ⌞ Reservoir conditions experiments: minimum miscibility pressure (MMP), solubility of gases, constant composition expansion (CCE), diffusion, recovery factors, etc.
- ⌞ Small pore throats and complex flow geometries require minimal amount of fluids to perform experiments

Multiple micromodels can be fabricated with identical properties, but chips can also be re-used multiple times. This is important for the repeatability and comparison of flooding experiments.



**WE SPEED UP YOUR LAB!**

Contact us at [fluidXlab@hoteng.com](mailto:fluidXlab@hoteng.com)  
And visit us at [fluidXlab.com](http://fluidXlab.com)



**OBSERVE YOUR CHEMICALS REACT WITH OIL AND WATER IN POROUS SYSTEMS**

# LAB SERVICES – COMPLEMENTARY STUDIES TO UNDERSTAND ALL ASPECTS OF FIELD DEVELOPMENT

Our laboratory services portfolio offers a re-defined wide range approach to IOR/EOR field application and environmental (CCS/CCUS, H<sub>2</sub>, UGS) studies. Incorporating all aspects of comprehensive studies, our services range from petrophysical studies to complex two-phase live fluids experiments. With microfluidics as a pinnacle of cost-time efficiency, we boost any project's efficiency:

- 7 **EOR services:** Comprise petrophysical, fluid-fluid/fluid-rock investigations and core flooding experiments.
- 7 **goGreen services:** Support the energy transition with gas characterisation and synthesis services, and with measurements of gas-rock and gas-rock-fluid interactions.
- 7 **SCAL services:** Straight from drilling campaign to lab: plug preparation, routine core analysis, petrophysical properties, relative permeabilities and capillary pressure measurements.



WE TAKE CARE OF MAXIMISED  
HYDROCARBON PRODUCTION

## RE-DEFINED LABORATORY WORKFLOWS FOR EFFICIENT SCREENING PROJECTS

When designing and preparing a field project, many chemicals/gas mixtures need to be tested to identify the optimum chemical formula and/or gas-rock compatibility.

Standard laboratory methods have proven to be time consuming. Our approach de-risks the selection of suitable chemicals (for IOR/EOR) or gas mixtures (for underground storage) at an early stage and enables a timely and effective workflow.



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