

## Carbon Capture Technology

Carbon capture and sequestration technology is being advanced by Southwest Research Institute® (SwRI®) engineers and scientists. SwRI offers clients scientific know-how and process development expertise in carbon capture and sequestration to assist in the development of technologies to respond to climate change regulation.

### Capabilities

Development capabilities include:

- CO<sub>2</sub> capture pilot plant design/integration/operation
- Capture technology selection and evaluation
- Process and flue gas automated sampling and analysis
- CO<sub>2</sub> separation membrane technologies
- Capture system simulation and energy consumption evaluation
- Use of regenerated CO<sub>2</sub> as a process feedstock
- Site monitoring/control
- Complete system analysis and process simulation
- Process component integration
- CO<sub>2</sub> absorption-enhanced reforming process development

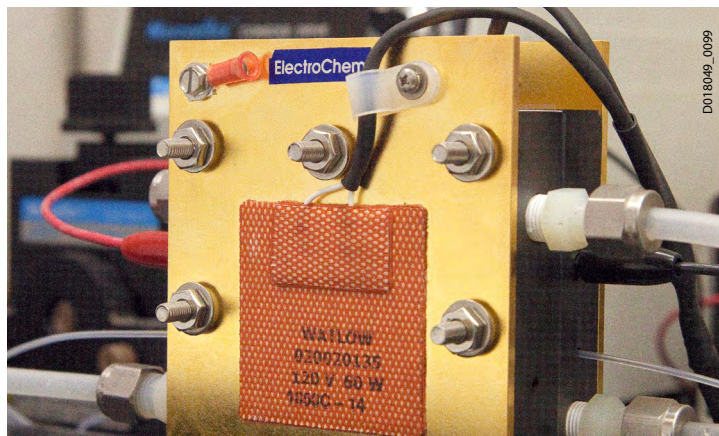
### Experience

Recent areas of work include:

- Gas/liquid equilibrium testing – vapor liquid equilibria (VLE) data
- Greenhouse gas-to-fuel technology
- Geological sequestration testing
- Chemical absorption and physical separation systems
- High-temperature CO<sub>2</sub> separation ceramic membrane development
- Greenhouse gas monitoring
- Alternative energy (fuel cells, hydrogen production, chemical batteries)



CO<sub>2</sub> absorption in a bubble column reactor

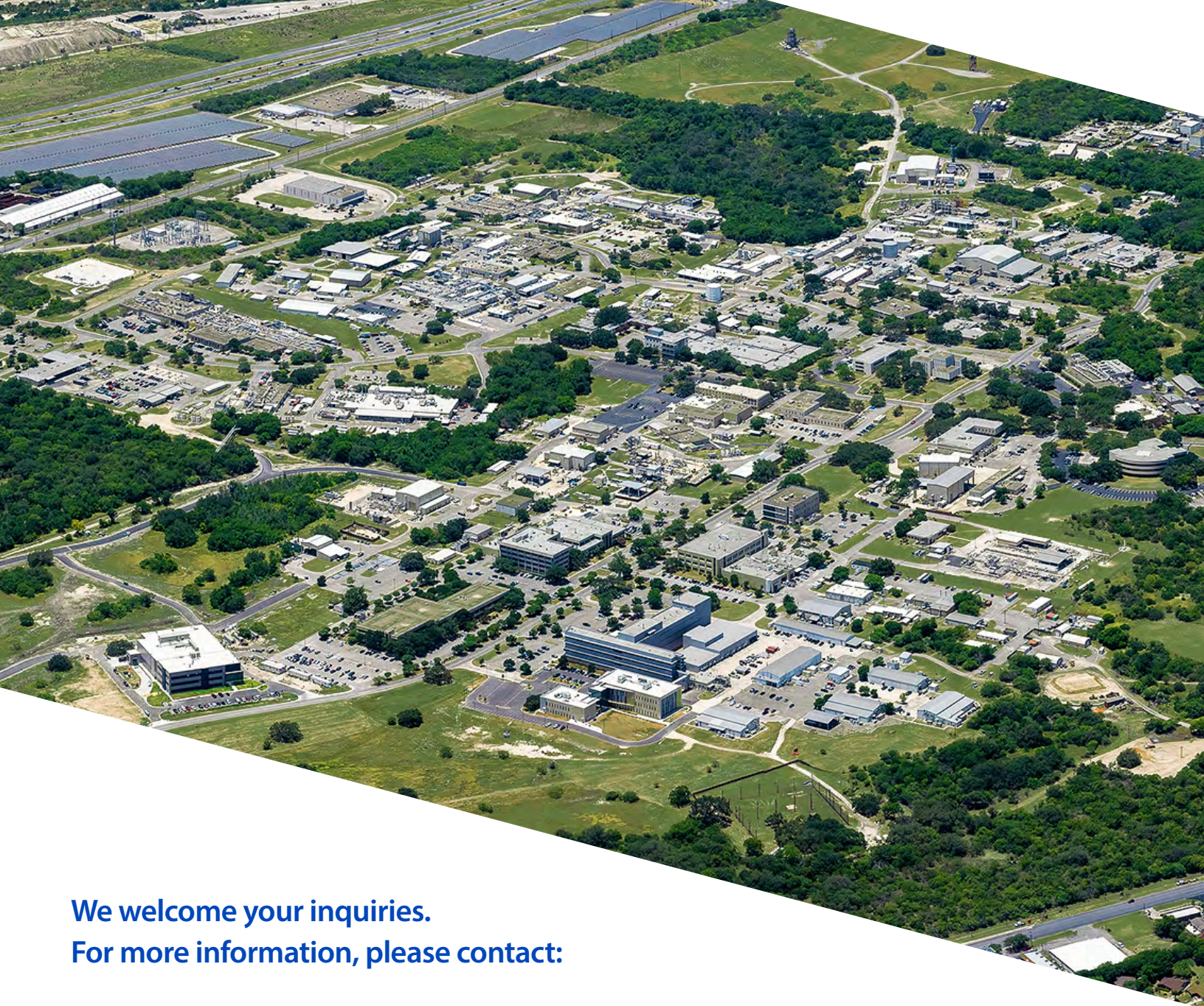


Fuel cell development



High-temperature CO<sub>2</sub> separation membrane evaluation system





**We welcome your inquiries.**  
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