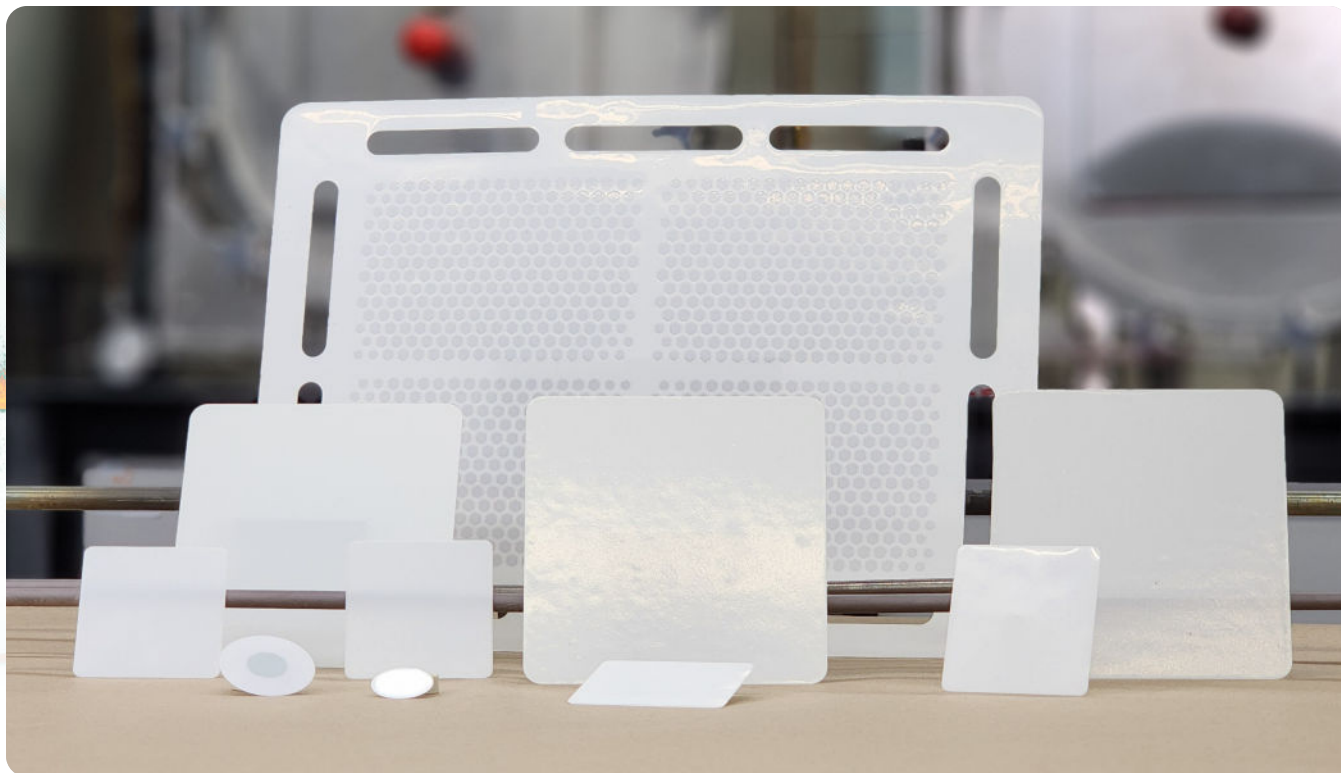


Solid Oxide Cells

Fuel Cell & Electrolysis Applications



Your Scale-Up Partner in Solid Oxide Innovation

Nexceris designs and manufactures materials and components across the planar Solid Oxide Cell (SOC) value chain for both Solid Oxide Fuel Cells (SOFCs) and Solid Oxide Electrolysis Cells (SOECs). Our portfolio spans advanced powders, specialized substrates, membranes, and high-performance planar cells.

From standard sizes to bespoke formulations, every component is tailored to help partners reach commercialization faster. This vertical integration from material synthesis to cell and stack development makes us a single-source partner, backed by thirty years of electrochemical and catalyst innovation.

Customization Options

Off-the-shelf products don't always fit the application. Our team works directly with partners to adjust composition, geometry, and electrode architecture, developing materials and components built around specific performance targets.

Membranes & Substrates

We offer membranes and substrates in standard and custom shapes, including anode-supported and electrolyte-supported configurations for a wide range of research and application needs.

 In-stock products ready to ship

Standard Configurations

Our core cell and membrane architectures, available in industry-standard form factors for rapid testing, benchmarking, and system integration.

Standard Available Sizes



Button / Disk
20 mm diameter • 25 mm diameter



Planar / Square
5 x 5 cm² • 10 x 10 cm²

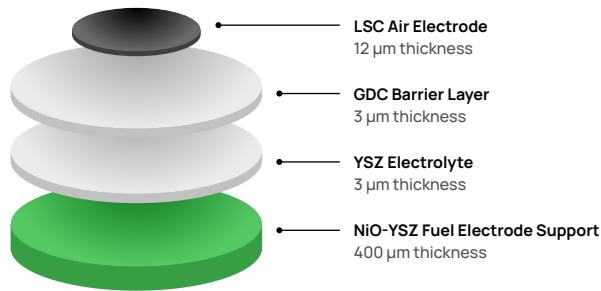
Standard Architectures

- Electrolyte Supported Cells (ESC)
- Electrolyte Membrane - ScSZ
- Electrolyte Membrane - 8YSZ
- Anode Supported Cells (ASC)
- Anode Supported Bi-layer
- ASC Half Cells
- ESC Half Cells

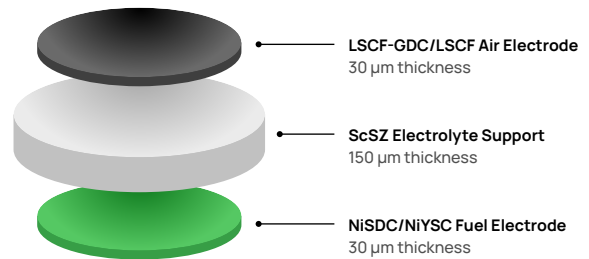
Structural Architecture Configurations

Visualizing layer composition and thickness for ASC and ESC.

ASC Architecture



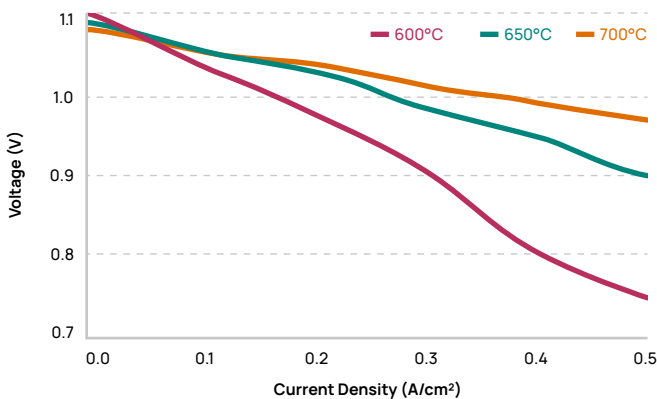
ESC Architecture



Performance Characteristics

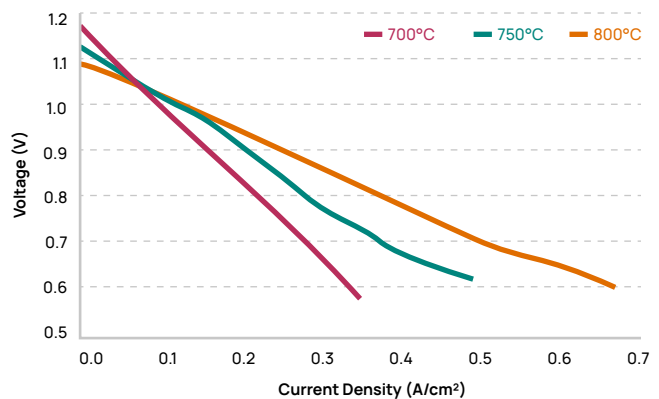
Representative polarization curves demonstrating baseline performance across standard operating temperatures.

ASC Performance



Anode Feed: H₂ 902 mlpm FU = 0.2
Cathode Feed: Air 2149 mlpm AU = 0.2

ESC Performance



0.26 SLPM Fuel: 50/50 H₂N₂