

The NextCell is an advanced electrolyte supported planar cell developed by the experts at **fuelcell**materials. Its performance exceeds standard YSZ electrolyte supported cells and can deliver results comparable to those of an anode supported cell.

The NextCell's performance can be attributed to the use of our patented Hionic™ electrolyte support, which is more than four times stronger than conventional fully stabilized electrolytes and yet has excellent conductivity.

With the combination of high strength and high conductivity you can finally have the performance you want with the sealing and handling capabilities you need. The NextCell follows industry standards, making it an excellent reference cell for seal or test capability development. It is compatible with most test fixtures, making it easy to incorporate into your own testing, or it can be used with test kits available through **fuelcell**materials.

If you are developing your own anode or cathode materials, reduce your variables by purchasing single electrode cells. Available as anode only or cathode only, these NextCell based cells provide you with a consistent platform so you can focus on your materials alone.

We keep a wide variety of NextCell sizes in stock so you can expect an easy ordering process and quick delivery.



Need something a little different?

Work with us! Here, you have a team of material scientists with years of expertise in the SOFC field ready to manufacture or assist you in developing cells custom tailored to meet your individual needs.

Providing proven and repeatable results to help simplify the complexities of research.

The NextCell Breakdown

Multi-layered anode with nominal thickness of 50 μm

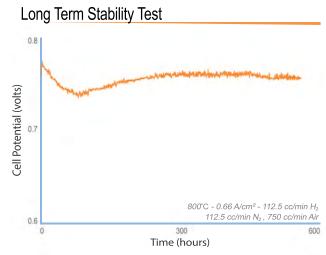
Multi-layered cathode with nominal thickness of 50 μm

LSM-GDC compatible inner cathode layer

NiO/GDC - NiO/YSZ anode for superior performance

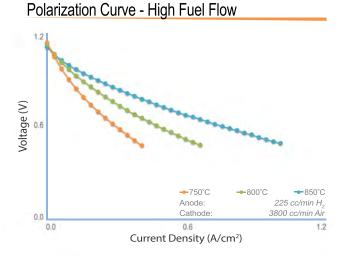
Scandia based Hionic™ substrate with nominal thickness of 150 μm

Hydrogen Power Curves -750°C Anode: Cathode: 3800 cc/min N₂ Cathode: 3800 cc/min Air Current Density (A/cm²)



0.0 Logido 0.8 Current Density (A/cm²)

Polarization Curve - Half Fuel Flow



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