

Electrolytes

Advanced SOFC Powders



fuelcellmaterials.com
PERFORMANCE AND QUALITY DELIVERED

High Purity

Increased Performance

World Class Characterization

The electrolyte material is critical in both electrolyte and anode supported fuel cells. Electrolyte powder can be turned into supports, used as a barrier layer or added to electrode layers to improve performance. **fuelcellmaterials** offers many different formulations and surface area ranges to meet our customers' needs.

Nanoscale Electrolyte Powders

Truly nanocrystalline materials with 5 to 10 nanometer particles. Nano grade powders offer tremendous amounts of active surface area to extend triple phase boundaries and lower processing temperatures.

Ceramic Grade Ceria Powders

Specific grades of gadolinium or

samarium doped ceria powders are available for multiple cell structure applications. Tape cast grade powders are tailored for processes that require high slurry solids loadings, such as tape or slip casting. Mid grade powder is designed to provide excellent sinterability at lower processing temperatures. These powders are suitable for pellet pressing and other non-aqueous manufacturing processes.

Micron-Submicron Electrolyte Powders

fuelcellmaterials offers a broad selection of micron to submicron powders, including YSZ and LSGM. The wide variety of particle size ranges ensures there is a material available to meet all your needs.



R&D Focused Materials and Support

fuelcellmaterials tailors its business and products around the needs of researchers worldwide. All materials are offered in small quantities and are available to ship next day to ensure your research continues uninterrupted.

Large variety of ceria based electrolyte powders
for multiple SOFC development applications.

Tailored formulations and physical specifications to optimize performance

High purity and reproducibility

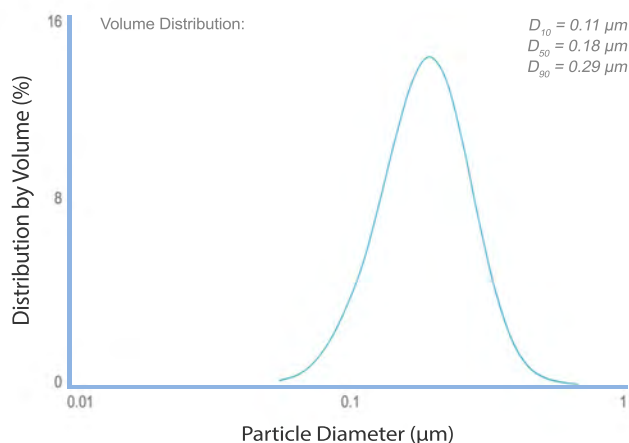
Ceria electrolytes with gadolinium or samarium dopants available

Scalable production to meet the needs of researchers and manufacturers

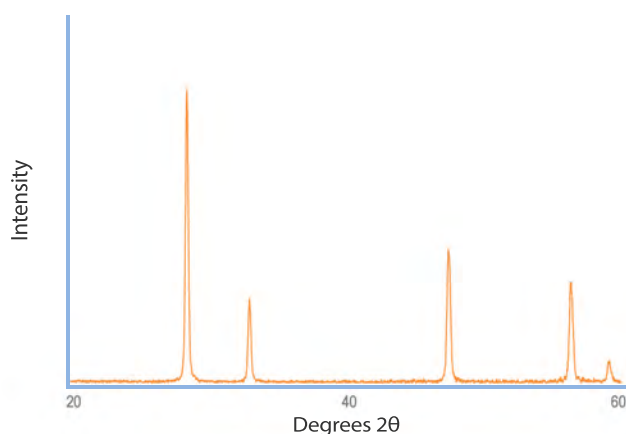
Submicron particle sizes to assist in lower processing temperatures



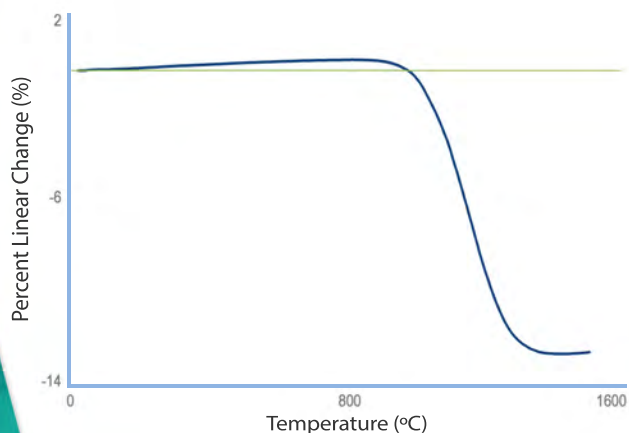
Particle Size Distribution



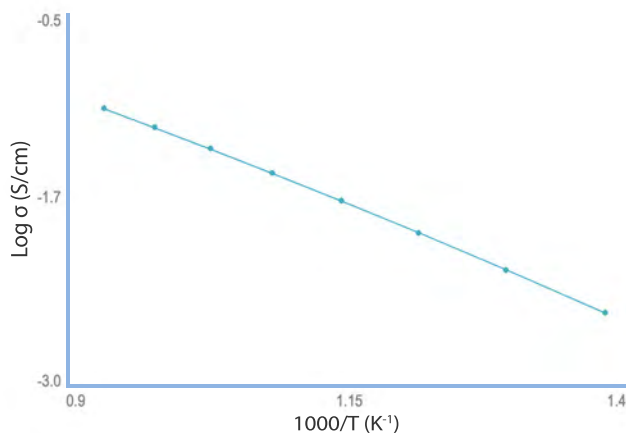
X-Ray Diffraction



Dilatometry



Electrical Conductivity



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