## Gadolinium Doped Ceria (CGO)

SOFCMAN offers Gadolinium Doped Ceria (CGO) powder. CGO is used as electrolyte material for solid oxide fuel cells and other electrochemical cells. Ceria-based electrolytes offer many advantages over traditional zirconia-based YSZ electrolytes, notably higher conductivities at lower operating temperature. Specifications on our CGO product are provided in the table below and representative data are provided in the figures on the following.

SOFCMAN has the ability to make material in larger quantities. For more information about our capacities or to request a quotation please contact us. Custom formulations can be delivered typically within three weeks of ordering.

## **Product Specifications**

Product Type	CGO
Standard Compositions*	GDC <sub>10</sub> : (Ce <sub>0.90</sub> Gd <sub>0.10</sub> )O <sub>1.95</sub>
	GDC <sub>20</sub> : (Ce <sub>0.80</sub> Gd <sub>0.20</sub> )O <sub>1.90</sub>
Particle Size(d50)	0.5~3 μm
Crystal Structure	Single-Phase Fluorite
Purity	≥99.5%

\*Custom formulation available.

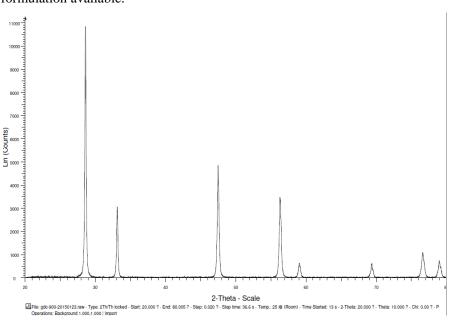


Fig. 1 Typical XRD Pattern

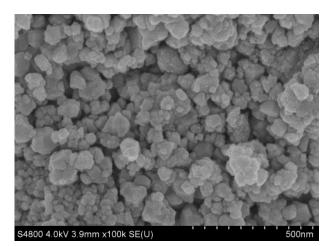


Fig.2 Typical FESEM Picture

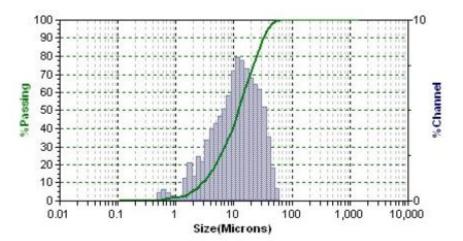


Fig.3 Typical particle size distribution

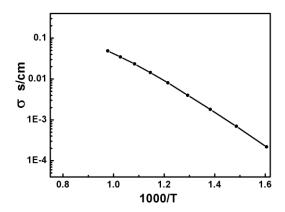


Fig.4 Electrical Conductivity Vs Temperature

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