

Advanced Cathode Catalysts and Supports for PEM Fuel Cells (Topic 3)

3M Company

- Funding

DOE Cost Share	Recipient Cost Share	TOTAL
\$8,400,000	\$2,100,000	\$10,500,000
80%	20%	100%

- Project Description: The objective of this collaborative effort is to develop a durable, low cost, high performance cathode electrode (catalyst and support), which is fully integrated into a proton exchange membrane (PEM) electrode assembly and which meets DOE 2010 catalyst targets. The approach is based on 3M's nanostructured thin film (NSTF) catalyst technology platform which is uniquely different from conventional PEM electrocatalysts in two fundamental ways: the nature of the catalyst support, which is non-carbon; and the process for applying catalyst to that support. Project work includes optimizing the NSTF whisker support surface area, combinatorial screening of new catalyst compositions and structures, improving catalyst durability, and demonstrating the advanced catalyst technology in single cell and short stack testing.
- Timeframe: 4 years, starting in FY07

Sub-Contractors

Institutions
Jet Propulsion Laboratory
Argonne National Laboratory
Dalhousie University