RUI: Catalytic Aerogel Materials (CAMS)

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CAMs have the potential to transform automotive pollution mitigation methods by replacing rare precious metals in automotive exhaust after-treatment technologies.

1) Bulk Physical Properties: Studies of Sol-Gel Chemistry & Aerogel Processing: Density, S. Area, Porosimetry, XRD, SEM


3) Ultimate Application: CAMs as 3-way Catalysts under Realistic Conditions: Casting on Support Structures, Strengthening, Catalytic activity in final forms

Percent decrease in HC, CO and NO at a space velocity ~18 s⁻¹ for an un-optimized Ni-Al aerogel.