**Utilizing:** Surface Engineering approach to Flyash – for making Oil Absorbent

**Lightweight:** High surface area of these ceramic particles can be incorporated to booms

**Green and Recyclability:** OOPS can be recycled through furnace to recover the energy value

Fuctionalization increases Sfc area
From 3-4 to 50-60 m²/gm, Modified flyash Absorbs a huge portion of the oil
Energy density of crude oil, burning value: would be approximately 20 x10E6 J per kg fly ash with 50% adsorbed oil by weight


**Patents:** 7,347,987, 7,727,559,

**Startup:** NTiOx

**PEG-nanoceria – catalytic Activity**
Indicators of oxidative stress are much higher in the Vldlr retina than in the normal wild type retina and injection of Nanoceria inhibits these increases.

**NIRT:** CBET-0708172

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**NSF Ceramic Materials PI Workshop, NSF, Virginia, 8-9th Sep 2010, Organizers: M. Mecklenborg, Dr. L. Madsen**