



Ceramic Nanomaterials for Functional Applications



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NSF DMR-1106168

Crystallo-Chemical Approach to Gas Selectivity of Metal Oxides

This Breathalyzer Reveals Signs of Disease

NSF Science Nation



OUTREACH

Related Press Coverage

- http://www.nsf.gov/news/special_reports/science_nation/breathprinting.jsp
- <http://ceramics.org/ceramictechtoday/tag/perena-gouma/>
- <http://www.pbs.org/newshour/rundown/2012/05/breathalyzer-gives-new-meaning-to-bad-breath.html>

NSF DMR-1046599 / IIP-1156513

Metal Oxide Nanogrids™ As Photocatalysts for Oil Decomposition

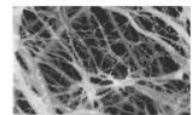
Turning Wastewater into Drinking Water

Reducing benzene contamination by 1000 times!

Analyses	Sample Result	LOD	LOQ	Qual	Units
VOLATILES BTEX BY 8260 Benzene	3500	25	50		µg/L

From 3.5 ppm

Nanogrids™ ©



Analyses	Sample Result	LOD	LOQ	Qual	Units
VOLATILES BTEX BY 8260 Benzene	130	0.5	1.0		µg/L

Analyses	Sample Result	LOD	LOQ	Qual	Units
VOLATILES BTEX BY 8260 Benzene	2.4	0.5	1.0		µg/L

To 2.4 ppb

Science Evenings With IDEAS - IDEAS - Hofstra University

Nanomaterials for a Healthier and Cleaner World

Dr. Perena Gouma
May 3, 2012

Related Press Coverage

- http://m.cnn.com/us_news/45754560
- <http://www.fastcoexist.com/1679006/why-you-may-not-mind-drinking-fracking-water-in-the-future>