

Optically Encoded Nanoparticles

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TECHNOLOGY DESCRIPTION

Researchers at the UC San Diego have invented an optical encoding method for encoding micron-sized nanoporous semiconductor, conductor, or dielectric particles to be used in biological and/or chemical screening, sensing, or identification application. Particles are optically encoded by changing process conditions during porosification. The particles can thereby be chemically modified for specific biological, biomedical, electronic, or environmental applications. The method, employing reflection spectroscopy, does not have the disadvantage of photobleaching inherent with fluorophores. Additionally, fluorescent analytes do not interfere with the particle signal. Moreover, the method is biocompatible, and can be applied to the screening of large numbers of analytes *in vivo*.

INTELLECTUAL PROPERTY INFO

- ▶ View inventor's lab link at <http://chem-faculty.ucsd.edu/sailor/research>.
- ▶ See Professor Michael Sailor's [Smart Dust](#) presentation from 2005.

CONTACT

University of California, San Diego
Office of Innovation and
Commercialization
innovation@ucsd.edu
tel: 858.534.5815.



OTHER INFORMATION

CATEGORIZED AS

- ▶ **Nanotechnology**
 - ▶ NanoBio
- ▶ **Security and Defense**
 - ▶ Other

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