

Nanoscale packages for imaging
agents, drugs, or chemicals

Web Based Seminar

April 21 1:00 p.m. – 2:00 p.m. EDT
May 17 1:00 p.m. – 2:00 p.m. EDT

Keystone Nano Inc. will host several web based seminars to discuss our proprietary Molecular Dot™ technology and how it can potentially be used in imaging, drug delivery, industrial and research chemicals applications.

To participate, check the www.keystonenano.com or contact Robert Cornwall rcornwall@keystonenano.com

Molecular Dots®

Imaging • Drug Delivery • Industrial & Research Chemicals



A nontoxic imaging nanotechnology that is capable of selectively delivering drugs

Key Features

- Nano scale particles in solutions
- Tailored size - 20 – 80 nm range
- Non agglomerating, discrete particles
- Nontoxic - made from calcium phosphosilicates
- Stable over long times – from months to years
- Can package chemicals, molecules, fluoroprobes and siRNAs within discrete nanoparticles
- Proprietary manufacturing technology



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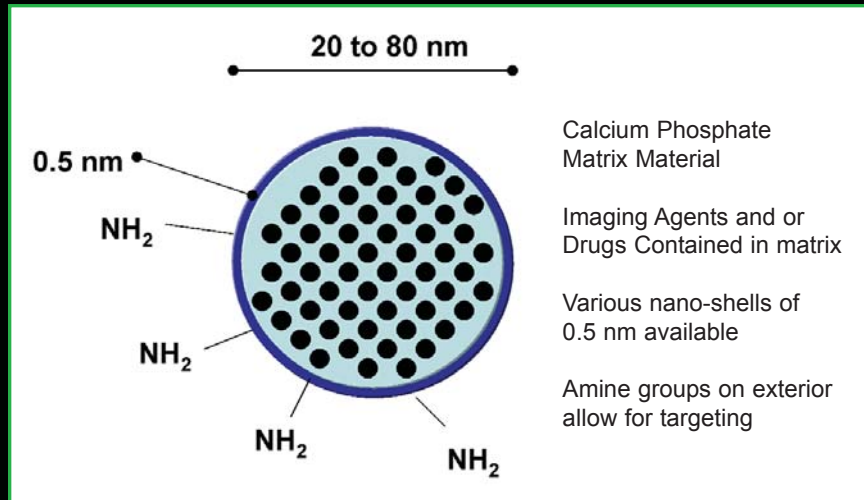


A nontoxic nanotechnology with the capacity to selectively image and treat diseases

Customized nano particle solutions for imaging, drug delivery, industrial and research chemicals

Keystone Nano has the ability to create custom nano-composite particles for its partners that solve a variety of commercial problems. MD's can provide imaging with enhanced sensitivity and improved imaging time. MDs are designed to address common problems with current therapeutics or therapeutic candidates such as: poor solubility, high toxicity, or limited ability to penetrate biological barriers. MD's in shorter time frames can seek treat and image, all in one package. MD's can package research chemicals improving stability and allowing the creation of unique formulations.

Molecular Dot Overview



Imaging Technology

Enhanced fluorescence in the visible or near infrared range
Long life - months to years
Resists photo bleaching and photo degradation
No self quenching

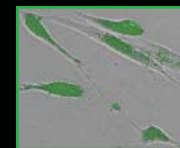
Opportunities for improved analytical and diagnostic applications

Applications: environmental, identification, forensic, and textile industries

Drug Delivery

Surface modifications designed for targeted drug delivery
Stable, safe, and non toxic in animal studies
Cocktail - combinatorial drug packaging
Time release options
Controlled bioresorbability
Improves efficacy, stability and solubility
Particles can be affixed to surfaces

Applications: cancer, diseases, and vaccines

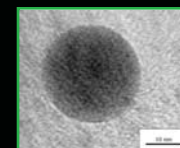


Green fluorescent MDs are nontoxic in smooth muscle cells

Industrial & Research Chemicals

Stabilize short shelf life chemicals
Enhanced fluorescence
Can be designed to dissolve at specific pH
Detect and indicate chemical changes

Applications: environmental, chemical, biological sensors and detectors



TEM 30nm MD



The NCI Alliance for Nanotechnology in Cancer states "Nanotechnology offers the unprecedented and paradigm-changing opportunity to study and interact with normal and cancer cells in real time, at the molecular and cellular scales, and during the earliest stages of the cancer process." Molecular Dots™ are an enabling platform for this opportunity

Keystone
Nano

www.kestonenano.com

October 2005 Winner of the International
Nanotechnology Business Idea Competition
Case Western Reserve University