

NBA Meeting
September 27, 2011

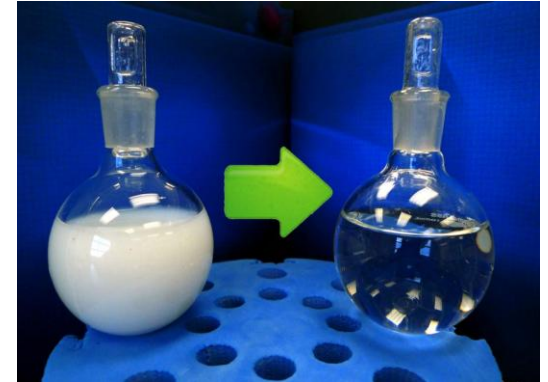
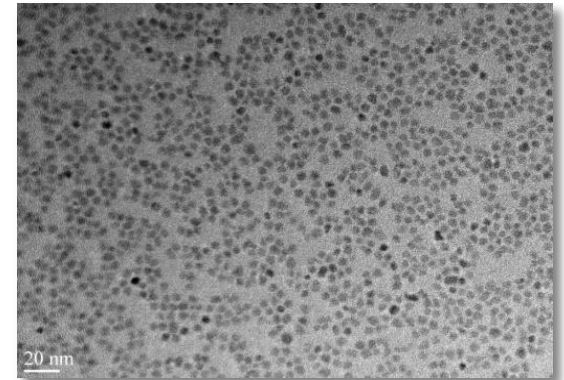
Pixelligent Technologies

- Nanocrystal Additive Company
- Products for the Electronics, Industrial & Military Markets
- 11,000 Sqr Ft. Pilot Manufacturing Facility
- Awarded \$11M+ in Federal Grant Programs Since 2007
- Raised \$9M Equity



Pixelligent “Secret Sauce”

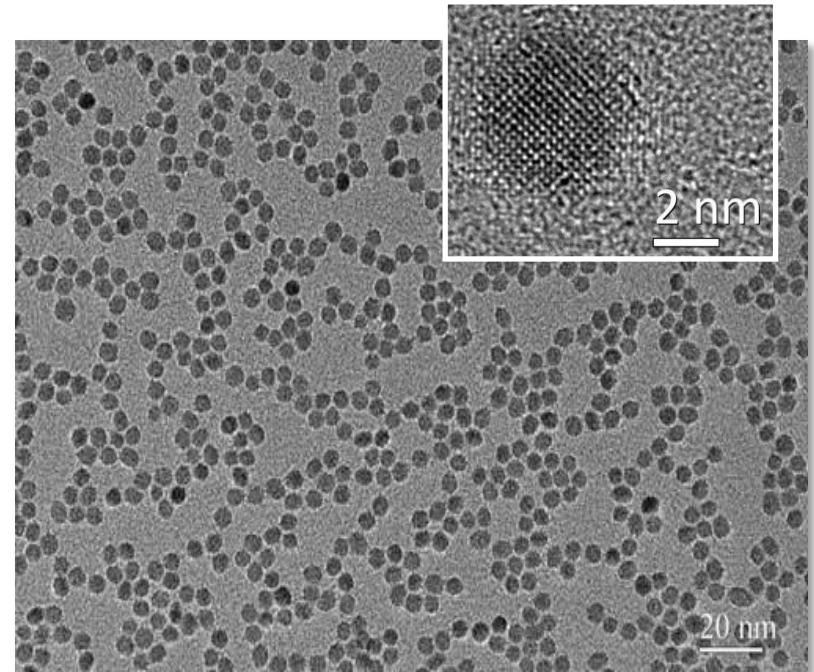
- Nanoparticles 2 nm – 10 nm
- Spheres, Rods, Tetrapods, etc.
- Uniform Dispersions, No Agglomerations
- High Loadings (>50%)
- Highly Scalable



Pixelligent NanoAdditives

Applications

- Improved anti-reflection
- Improved scratch resistance and hardness
- Improved anti-corrosion
- Improved chemical resistance
- High refractive index
- Improved tribological properties



Pixelligent Flexible Synthesis

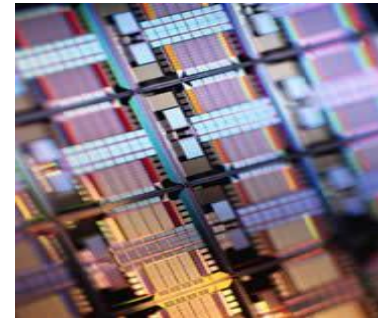
➤ Compatible with:

- Polymers
- Acrylics
- SOGs
- Siloxanes
- Polyesters
- Epoxy resins
- Silicones



Brewer Science Partnership

- Supported by \$8.2M NIST Grant
- Start Date 2/2010
- 3 yr. Program, Matching Funds
- Joint Development w/Brewer Science
 - Microlithography Application
 - Encapsulant Coating for HB LED's
- Scale-up to Kg's/Day
- Ahead of Schedule



ALCOA Inc. Partnership



- Start Date 6/2011
- 6 mo. Program
- Awarded by PANMC
- Joint development of a nano-crystal enhanced composite coating system
 - Improved Corrosion Resistance
 - Improved Scratch Resistance
 - Improved Appearance



Lubricants Applications

- Nanocrystals dispersed in base oils along with other additives
- Reduce Friction Coefficient
- Increase Wear Resistance
- Increase Load Bearing
- Improve Thermal Properties
- Many uses – engines, high speed machining, drilling ...

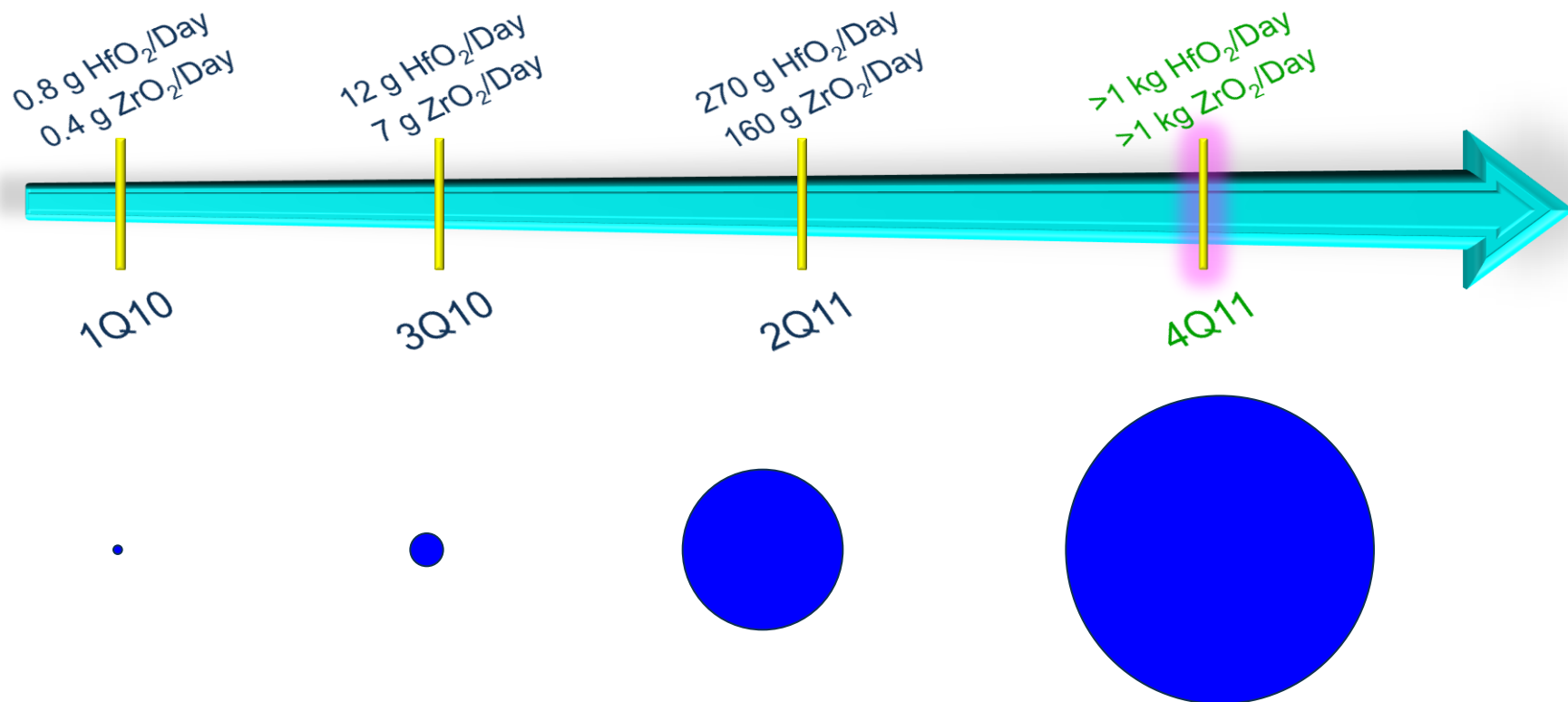


Clean Technology

- Metal Oxide Nanocrystals - Highly Stable
- Wet Chemistry Minimizes Potential EHS Issues
- Closed-Loop Manufacturing, Recycle 90% of Our Solvents
- HB-LED Additives
 - More Efficient
 - Reduced Heat
 - Increased Brightness
- Industrial Additives
- Lubricant Additives



ZrO₂/HfO₂ Scale-Up Timeline



Pilot Manufacturing Facility

- 11,000 Ft² occupied, 50,000 Open for Expansion
- \$ From BDC & DBED
- Multiple KG's/Day 4Q2011
- 15 Employees → 25
- Actively Engaging w/Customers & Partners



Manufacturing Facility On-Line
2Q2011

Open Positions

- VP Manufacturing w/Six Sigma
- Director Bus Development
- Industrial Chemical Engineer
- Controller
- Technicians



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