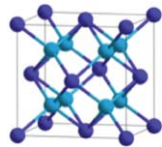


KJR

Materials Technology

CONSULTING LLC



Consulting in the area of engineered nano-materials for multiple applications

- Functional Materials
- Additive Manufacturing
- Heterogeneous Catalysis
- Control of Oxidation
Reduction Chemistry
- Electrically Conductive Inks
- Strategic Intellectual Property
Portfolio Generation



Kenneth Reed, Ph.D.

Visiting Scholar, School of Chemistry and
Materials Science at Rochester Institute of
Technology - 2015

CURRENT

- Rochester Institute of Technology
- KJR Materials Technology Consulting LLC

PREVIOUS

- Rochester Professional Consultant
Network
- Cerion NRx, Cerion Energy, Cerion
Advanced Materials, Eastman KODAK

EDUCATION

- Stanford University
- Rochester Institute of Technology

AREAS OF EXPERTISE

- Technology invention, innovation,
and development
- Open Innovation
- Patent Strategy
- Research Management

Technical Competencies in the Field of Nano-composition of Matter

- Economic, scalable and facile synthesis
- Particle size control
- Enhanced particle shelf-life and stability control
- Surface functionalization for multiple applications and platform technology development
- Independent control of thermodynamics and kinetics through lattice engineering
- Classical and Quantum Mechanical molecular dynamics and static lattice calculations relating nano-material composition and lattice defects to physical properties
- STEM, AEM, TEM, EDS particle analysis

Engineered NanoMaterials Business Development

- Co-founder and Chief Technology Officer/ Chief Science Officer of three nano materials companies: Cerion Energy, Cerion NRx and Cerion Enterprises (now Cerion Advanced Materials)
- Product development expertise in the areas of :
 - Catalysts for enhanced combustion efficiency and kinetics
 - Central nervous system drug development for the treatment of ALS and MS
 - Nano-fluid applications for enhanced lubricity
 - Heterogeneous Catalysis
 - Control of oxidation and reduction reactions at surfaces: ex rusting
 - Lithium ion battery novel composition of matter
 - Ink particle development for conductive traces
 - Functional particles for additive manufacture

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Service Offerings

- Product application space identification
- Fundamental generation of nano colloid synthetic approaches, stabilization and functionalization
- Classical and Quantum Mechanical crystalline structure and defect properties
- Materials analysis including : SEM (JEOL 6400 50 nm diameter resolution) elemental analysis capabilities in point, linescan, and mapping modes)
- TEM (JEOL 2010 capable of 0.23 nm point resolution at 200 kV)
- Software for interpreting diffraction patterns and searching for possible candidates. Quantitative elemental analysis capability in nano areas

