

# CO<sub>2</sub> Mineralization for *in situ* Storage and *ex situ* Enhanced Metals Recovery



## Richard Riman

Distinguished Professor  
Materials Science and Engineering  
riman@rutgers.edu

- B.S. Ceramic Eng., Rutgers Univ.
- Ph.D., Mat. Sci. Eng. MIT
- >225 publications,
- >175 patents
- >500 presentations
- 14 labs/6 offices
- State-of-the-art instrumentation
- National Academy of Inventors
- World Academy of Ceramics
- NJ Inventors Hall of Fame
- Worked with >100 companies
- Founder of 2-CO<sub>2</sub> utilization Cos.

## Technology or focus area

- New raw materials
- New methods for capture of CO<sub>2</sub>
- New methods of carbonation and decarbonation
- Uses of CO<sub>2</sub> for mineral beneficiation
- Chemical size reduction

## Ideas, Interests, Concepts to be Explored

- Sustainable materials manufacturing
- Hydrothermal and solvothermal technology
- Rxn kinetics catalysis, measurement & modeling
- Rxn thermodynamics modeling & measurements
- Crystallization kinetics

