# 3M Co Abrasive Systems Division

R&D Ceramic Materials Job Description

Description: Applies technical competencies in ceramic, inorganic, and materials science to develop novel abrasive minerals. Networks with the ASD Mineral R&D team to investigate unique sol gel ceramic microstructures. Develops a fundamental understanding of the relationship between abrasive grain structure and how it mechanically fractures. Actively participates on product commercialization teams. Partners closely with the 3M Corporate Research Materials Laboratory to leverage state-of-the-art nanotechnologies. Uses analytical characterization techniques such as SEM, TGA/DTA and rheology to evaluate new abrasive grains. Leverages good communication skills to inspire, influence, motivate, and teach other team members.

Qualifications:
BS, MS, or PhD in Ceramics, Inorganic Chemistry or Materials Science with an emphasis on the development of novel inorganic materials. Familiarity with sol gel ceramics, aluminum oxide chemistry, nanoparticle processing, sintering, multiphase materials, fracture mechanics, SEM, TGA/DTA, and rheology highly desired. The position requires a strong experimental aptitude coupled with the creative ability to synthesize and evaluate unique inorganic materials.

Contact Information:
Dr. Wayne Maurer
3M Center, Bldg 251-3A-05
St. Paul, MN 55144
651-737-5294
wwmaurer@mmm.com