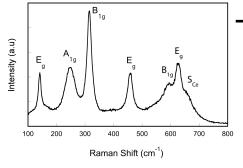
## Molly M. Gentleman

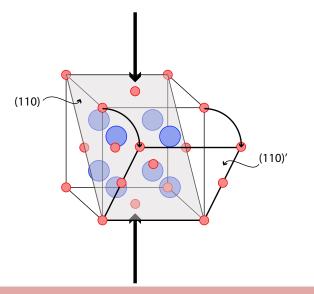
Materials Division, Mechanical Engineering Department, Texas A&M University

"In situ toughening of high temperature ceramics"

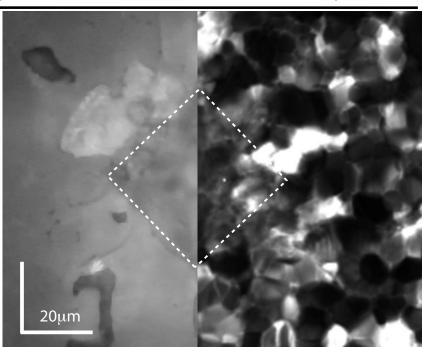


Polarized Raman spectroscopy allows us to observe ferroelastic switching nondestructively

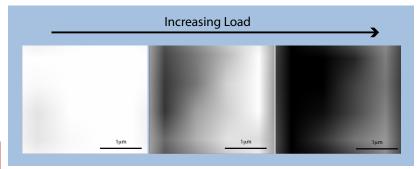
Ferroelastic toughening is a process by which a ceramic can increase its toughenss through the formation of twin boundaries and spontaneous strains under loading.



Polarized Raman spectroscopy provides a tool to evaluate the process of FE switching in high temperature ceramics and evaluate their effectiveness



Raman can be used to observe domain boundary motion



A.M. Bolon and M.M. Gentleman, J. Am. Ceram. Soc. 2011