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| **Student** | **Advisor** | **Poster Title, Abstract & Student Bio** |
| Jeremy Armas | Dr. Ray Fernando | Title: Film Formation Studies of Reactive Latexes  Abstract: The goal of this project is to explore the fundamental changes that occur when a zero-VOC, self-crosslinking latex moves from wet stage to a fully cured film. This is a collaborative project among Golden Gate Society for Coatings Technology (GGSCT), Specialty Polymers Company, and Cal Poly Polymers and Coatings Program. The project involves two series of styrene-acrylic latexes, one series containing some epoxy functional groups and the other without. The minimum film formation temperatures (MFFTs) of all latexes are approximately 20 oC and the particle diameters are approximately 100 nm. Effects of two cross-linking chemistries, diacetone acrylamide/adipic dihydrazide (DAAM/ADH) and acetoacetoxyethyl methacrylate (AAEM), each at 0, 1, 2, 3, and 4% levels are explored. Changes during latex film formation are being monitored with the help of Atomic Force Microscopy (AFM) and Fourier Transform Infra-Red (FTIR) spectroscopy. The latest results will be presented in this poster.  Bio: Jeremy Armas is a B.S. Chemistry Major and an M.S. candidate in Polymers and Coatings. He is in his 5th year at Cal Poly. Jeremy graduated from Spanish River Community High School, Boca Raton, Florida, in 2013. He participated in summer programs at both UC Davis and Lawrence Livermore National Laboratory during his college career. Life is good for Jeremy when he is hiking, surfing, or fishing. |