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Development of novel nanomaterials research project at a community college SHAWN SANDERS, Hartnell Community College Student, JOSE OROZCO, DIANA MIKHAIL, MELISSA RAMOS, Hartnell Community College Student, lab partner, SEWAN FAN, SLAVA BEKKER, Hartnell Community College Instructor, Our mentor — At Hartnell College, we are developing an undergraduate research program in the synthesis and characterization of metallic nanoparticles and semiconducting quantum nano materials. Presently, we have synthesized silver nanoparticles using Turkevich method in which silver ions are reduced with sodium citrate. Due to recent reports on the prospect of bandgap engineering of cesium lead halide perovskite nanoparticles, we plan to synthesize aforementioned compounds and study their salient features. To characterize the resultant nanoparticles, material science techniques such as UV-visible absorption spectroscopy, scanning electron microscopy and atomic force microscopy would be used. Here, our synthetic and spectroscopic results are presented.

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