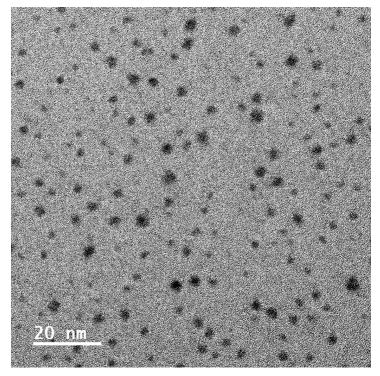
## **Collaborative Industry Research with Natural Immunogenics Corporation**

Natural Immunogenics manufactures high-quality silver colloids for health applications. Natural Immunogenics' colloidal silver products are thought to contain some of the smallest silver nanoparticles available (1-4 nm in diameter). The company is also looking beyond silver to develop new products based on copper and gold colloids. This collaborative research project aims to comprehensively characterize NIC's colloidal products utilizing experimental methods including but not limited to TEM-EDS, XPS, DLS, FTIR, UV-Vis, and SEM. These analytical tools are used to assess crystal structure, composition, and possible alloying and/or oxidation, resulting in core-shell heterogeneity in support of new product development and manufacturing quality control.



TEM micrograph of silver nano-colloids.

N. Qin, A. DaSilva, A. Agustin, and E. Cantando. Work performed at Virginia Tech National Center for Earth and Environmental Nanotechnology (NanoEarth).

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