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The impact of sampling medium and environment on nanoparticle morphology[1] OGOCHUKWU ENEKWIZU, New Jersey Inst of Tech, CHAO CHEN, YAN MA, Nanjing University of Information Science Technology, Nanjing, China, DMITRY ZAKHAROV, Center for Functional Nanomaterials, Brookhaven National Laboratory, Upton, NY, ALEXEI KHALIZOV, New Jersey Inst of Tech
— Sampling on different substrates is commonly used in aerosol research. Our focus was on the transformations that can occur to the collected nanoparticles during storage, handling, and analysis. Collected samples were inspected by electron microscopy before and after exposure to various environments. The extent of sample alteration ranged from negligible to major, depending on the environment, substrate, and particle composition. We discuss the implications of our findings for cases where morphology and the mixing state of particles must be preserved and cases where particle transformations are desirable.

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