

Inkjet Printing of Semiconductor Nanoparticles

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NNIN Facilities utilized: Characterization Facility & Nanofabrication Center

The purpose of the work is to use an inkjet printing device to deposit a silicon or germanium nanoparticle ink to form a continuous and functional thin film.

The work done in the Nanofabrication Center is to prepare substrates for SEM imaging, to deposit metallic contacts for conductivity measurements and for rapid thermal annealing processes.

The work done in the Characterization Facility is primarily SEM imaging of drops and films, profilometry measurements, optical microscopy, and XRD measurements of films.

