

High-Throughput TEM: load multiple liquid samples onto a single grid

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Analysis of nanoparticles by TEM is a very useful characterization method. However, by nature of TEM instrument design placing sample grids under high vacuum, the number of samples that measured in a given time period is very limited.

For over 10 years, SCIENION's picoliter liquid dispensing technology has been used to deposit arrays of different sample solutions onto a wide variety of substrates. Applying this well-proven technology to dispense multiple liquid samples as colloidal suspension of nanoparticles onto a single TEM grid is an obvious extension.

Our technology can be applied to dispense multiple different samples of nanoparticles and a range of other substances onto a single TEM sample grid. This application will enable high-throughput analyses and experimentations that were previously not possible.

Save time, wear and tear of your TEM by significantly reducing the number of load/unload vacuum cycle, to dramatically increase your TEM ROI.

Figure 1. Printed 5x5 array of 100 pL solutions of nanoparticles using a piezoelectric drop generation with a sciTEM system. TEM image shows distribution of 40 nm Au nanoparticles within a single spot.

