

Nanofabrication: From DNA-Directed Assembly to Volume Nanomanufacturing
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The term “nanofabrication” encompasses the myriad of techniques that can be used to make nanostructures, but only a small subset can make the transition to economic viability that defines “nanomanufacturing”. I will discuss some of the process-related criteria, such as speed, yield, precision, defectivity, and flexibility, as well as economic criteria, such as market size and cost margin, which must be considered when determining whether or not a fabrication process might be suited to manufacturing. I will illustrate these concepts through examples taken from the semiconductor industry and our own work on DNA-directed assembly [1 – 4].

[1] S. H. Ko, et al., *Adv. Func. Mater.*, **22** 1015 (2012)

[2] S. H. Ko, et al., *Angew. Chemie*, **52**, 1193 (2013)

[3] K. Du, et al., *Chem. Commun.*, **49**, 907 (2013)

[4] S. H. Ko, et al., *Soft Matter*, **10**, 7370 (2014)