



## Multi-Dimensional Direct-Write Nanofabrication

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### Message from the Guest Editor

Dear Colleagues,

During the last decade, additive direct-write manufacturing has attracted considerable attention in research and development. The main advantage of such a method is the ability to fabricate complex structures in a single-step, which expands accessibility to non-flat surfaces, morphologically exposed areas, already finished device architectures, or encapsulated packages; accordingly, such direct-write technologies complement situations in which alternative methods approach their intrinsic limitations. While applications on the micro- and meso-scale below are already well established in industrial productions such as roll-to-roll processes, laser sintering, inkjet printing, or imprint lithography, the extension to the real nanoscale is still an ongoing and highly challenging task. Promising candidates with the potential to meet these dimensional requirements are photons, ions, or electrons, as demonstrated by numerous proof-of-principle studies during the last decade. Aside from their technical nature, direct-write approaches enable controlled fabrication of complex, freestanding 3D nano-architectures in a single step, which paves the way for novel applications.

