

## Nanomachining by Colloidal Lithography

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Colloidal lithography is a recently emerging field, and the evolution of this simple technique is still underway. Recent advances in this area have developed a variety of practical routes of colloidal lithography which have a great potential to replace, at least partly, complex and high cost advanced lithography techniques. This lecture presents the state of the art of colloidal lithography and consists of three main parts, beginning with synthetic routes to various monodisperse colloids and their self-assemblies with fewer defects which are used as lithographic masks. Then, we will introduce the modification of the colloidal masks using RIE, which produces a variety of nanoscopic features and multifaceted particles. Finally, a few prospective applications of the colloidal lithography will be discussed.