

Robotic Nanoassembly

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ABSTRACT

This paper presents a general review of nanoassembly by robots considering its current developments and challenges. It discusses scanning probe microscope (SPM) based nano vision and 2D manipulation, nano gripping and 3D handling, and hybrid nanoassembly techniques, which are the main topics of interest in the field. The challenging issues in robotic nanoassembly are outlined including versatile nano handling, automatic 3D operations, and hybrid nano handling and assembly.

Keywords: robotics, nanoassembly, nanomanipulation, nanoimaging, nanometrology.

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