

Microstructuring by Diamond Machining Processes

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Abstract

Diamond machining is a versatile technique for the generation of optical surfaces in various geometrical modifications from small to large components with smooth, continuous and micro to nano structured features. Diamond machined parts are applied directly as optics or used as molds for replication techniques.

In this presentation two ultraprecision machining techniques for the manufacture of micro and nano structures (DOE: diffractive optical elements) are outlined explicitly and discussed with respect to established processes regarding their future potentials.

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