

Title (en)

IMPROVED APPARATUS, SYSTEM AND METHOD FOR APPLYING OPTICAL GRADIENT FORCES

Title (de)

VERBESSERTE VORRICHTUNG, VERBESSERTES SYSTEM UND VERBESSERTES VERFAHREN ZUM ANWENDEN OPTISCHER GRADIENTENKRÄFTE

Title (fr)

APPAREIL, SYSTEME ET PROCEDES AMELIORES PERMETTANT D'APPLIQUER DES FORCES DE GRADIENT OPTIQUE

Publication

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Application

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Abstract (en)

[origin: WO02093202A2] The present invention relates generally to generating and controlling optical trap arrays for manipulating particles. In particular, the invention relates to a dual function optical element able to both diffract laser light into beamlets and converge the beamlets (acting as a virtual lens for laser light), thereby eliminating the need for multiple physical lenses to transfer the diffracted laser beams to a focusing lens. The invention also relates to improved monitoring of optical traps by limiting the amount of noise reflected and scattered resulting from un-diffracted, laser light.

[origin: WO02093202A2] An apparatus to produce and monitor at least two optical traps (1002, 1004) comprising a phase patterning element (12), a single transfer lens (L1), a beam splitter (51).

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