

Title (en)
APODIZATION OF OPTICAL FILTERS FORMED IN PHOTSENSITIVE MEDIA

Title (de)
APODISATION VON IN PHOTSENSITIVEN MEDIEN GEBILDETEN OPTISCHEN FILTERN

Title (fr)
APODISATION DE FILTRES OPTIQUES FORMES DANS DES MILIEUX PHOTSENSIBLES

Publication
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Application
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Priority
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• US 9154798 P 19980701

Abstract (en)
[origin: WO0002068A1] Filter gratings are formed in optical waveguides (50) having photosensitive cores by exposing the cores to actinic radiation in the form of interfering beams (38, 40) having peak intensities (72, 74) that are relatively displaced along an optical axis (64) of the waveguides. Each of the interfering beams has a single-lobed intensity profile and a degree of spatial coherence required to achieve a desired fringe contrast between the two relatively displaced beams. Index modulations in the photosensitive core match the illumination (interference) pattern of the radiation. The relative displacement of the interfering beams reduces side lobes of the gratings' spectral responses by leveling the average refractive index of the index modulations. A second exposure with the two beams but without the beams' interference effects further levels the average refractive index.

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