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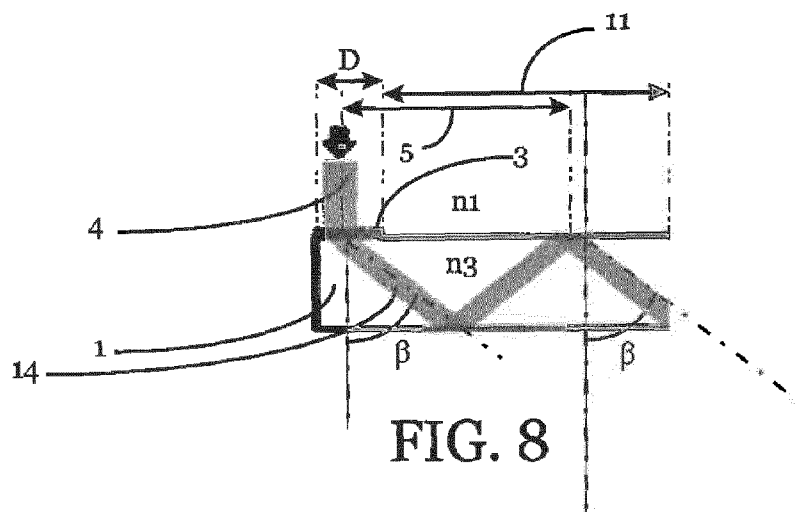
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(54) Title: METHOD TO OPTIMIZE A LIGHT COUPLING WAVEGUIDE



(57) Abstract: The present invention concerns a method for constructing a light coupling system wherein a grating is manufactured on the surface of a multimode waveguide and defines the entrance of the waveguide for an incident light beam, said grating comprising a repetition of patterns. The grating is defined by a set of parameters comprising: • grating period (P), separating two adjacent patterns, • grating depth (d) between the highest and the lowest point of the pattern, • incident angle mean value (θ) of the incident light with respect to the waveguide. The method comprises a step of optimization of the set of parameters to obtain an optimized second set of parameters, in order to obtain a transmission efficiency (C_e) of the incident light into said waveguide for the first or the second diffractive order exceeding 35% for unpolarized light, or exceeding 50% for polarized light, at a given wavelength of the incident light.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, INSPEC

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Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

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