

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/087429 A1

(51) International Patent Classification⁷: **B23K 26/38**

(21) International Application Number:
PCT/FI2005/050087

(22) International Filing Date: 16 March 2005 (16.03.2005)

(25) Filing Language: Finnish

(26) Publication Language: English

(30) Priority Data:
20045084 18 March 2004 (18.03.2004) FI

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

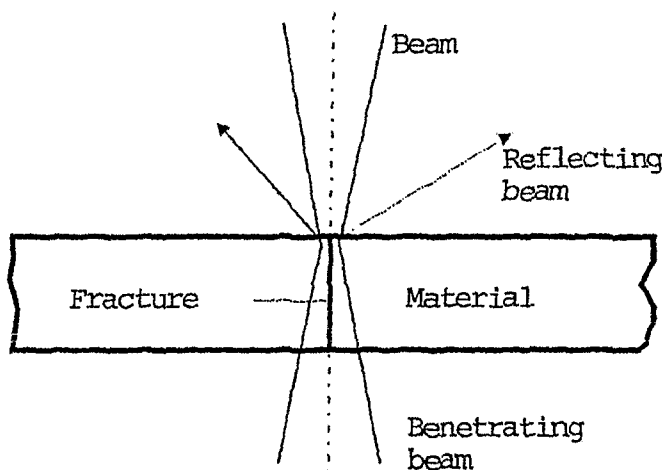
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR MACHINING A MATERIAL WITH HIGH-POWER DENSITY ELECTROMAGNETIC RADIATION



(57) Abstract: The invention relates to a method
for machining a material with high-power density
electromagnetic radiation. The radiation has its
wavelength selected material-specifically, such that
the radiation penetrates inside the material without
substantial surface absorption. The radiation is
focused on a spot inside the material and/or in
the proximity of a penetration surface and this
spot is moved along a desired machining path.
The electromagnetic radiation can be provided
by laser light and the focusing can be effected by
means of optics. The method is particularly useful
in cutting glass and the method offers benefits,
including only slight heating of the machined
workpiece, smoothness of the fracture plane and
no vaporization of harmful alloying elements.

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