

Title (en)
DIAMOND OR GEMSTONE MARKING BY PLURALITY OF GROOVES

Title (de)
MARKIEREN VON DIAMANTEN ODER EDELSTEINEN MITTELS MEHRERER NUTEN

Title (fr)
MARQUAGE D'UN DIAMANT OU D'UNE PIERRE PRECIEUSE, SOUS FORME DE PLUSIEURS RAINURES

Publication
EP 1042132 B1 20031203 (EN)

Application
EP 98962614 A 19981223

Priority
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• GB 9727364 A 19971224

Abstract (en)
[origin: GB2332651A] The surface of a diamond gemstone is marked with an alphanumeric character in the form of parallel grooves 10 using a focussed ion beam (eg gallium), excimer laser or plasma etching. The mark cannot be read with the naked eye, the grooves producing a visible diffraction effect such that the mark can be read under magnification. The marked diamond 104 may be viewed using a microscope when illuminated by two directional light sources 106 at an angle corresponding to the angle of diffraction.

IPC 1-7
B44B 7/00; G02B 21/00

IPC 8 full level
A44C 27/00 (2006.01); **B44B 7/00** (2006.01); **B44C 1/22** (2006.01); **G02B 21/00** (2006.01); **G09F 19/12** (2006.01)

CPC (source: EP KR)
B44B 3/04 (2013.01 - KR); **B44B 7/00** (2013.01 - EP KR); **B44B 2700/08** (2013.01 - KR)

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GB 2332651 A 19990630; GB 2332651 B 20011107; GB 9828393 D0 19990217; AU 1774399 A 19990719; AU 746557 B2 20020502; CA 2316957 A1 19990708; CA 2316957 C 20040427; CN 1146506 C 20040421; CN 1284916 A 20010221; DE 69820295 D1 20040115; DE 69820295 T2 20041021; EP 1042132 A1 20001011; EP 1042132 B1 20031203; ES 2212385 T3 20040716; GB 9727364 D0 19980225; HK 1020032 A1 20000310; IL 136967 A0 20010614; JP 2001526996 A 20011225; JP 2009285733 A 20091210; JP 4497720 B2 20100707; KR 100501089 B1 20050718; KR 20010040311 A 20010515; RU 2215659 C2 20031110; TW 458836 B 20011011; WO 9933671 A1 19990708; ZA 9811838 B 20000623

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GB 9828393 A 19981222; AU 1774399 A 19981223; CA 2316957 A 19981223; CN 98813787 A 19981223; DE 69820295 T 19981223; EP 98962614 A 19981223; ES 98962614 T 19981223; GB 9727364 A 19971224; GB 9803889 W 19981223; HK 99104599 A 19991019; IL 13696798 A 19981223; JP 2000526381 A 19981223; JP 2009190919 A 20090820; KR 20007007105 A 20000623; RU 2000119785 A 19981223; TW 87122018 A 19981231; ZA 9811838 A 19981223