

人造金刚石磨料与制品

专利定题检索资料



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PATENT NO.: +US-5075095A(911224).
TITLE : LOW PRESSURE PRODN. OF MECHANICALLY STABLE
DIAMOND MASS—BY CONTACTING AGGREGATION OF
DIAMOND PARTICLES WITH ATOMIC HYDROGEN.
PATENTEE : CRYSTALLUME.
PATE CODES : CRYST-
IPC : 001803106.
D.W. NO. : E36; L02.
ACCE. NO : 92-031991.
LW/FW : 09204, 09204.
PRIORITY : 87041587US-0032169 88060788US-0204058
89092789US-0413144.

ABS. : PROCESS FOR CONSOLIDATING DIAMOND PARTICLES
INTO A MECHANICALLY STABLE DIAMOND MASS COMPRISES
CONTACTING A COMPACTED AGGREGATION OF DIAMOND PARTICLES
WITH ATOMIC H UNDER CONDITIONS WHERE THE DIAMOND
PARTICLES GASIFY AND ARE REDEPOSITED AS A MECHANICALLY
STABLE DIAMOND MASS DEVOID OF INTERSTITCHED SPACES. THE
ATOMIC H IS GENERATED BY APPLYING NON-THERMAL ENERGY TO
THE PARTICULATE MASS WHILE EXPOSING THE MASS TO MOLECULAR
H₂. IT MAY ALSO BE FORMED BY DISSOCIATING MOLECULAR H₂
UPON A CATALYTIC MATRIX, SELECTED FROM PT, PD, NI, PANEY
NICKEL, PB AND OTHER HYDROGENATION CATALYSTS. CARBON
COURCE GAS PRESSURES ARE 0.001-1000 TO 3-103 TORR, PREF.
10-50 TORR. TEMPS. ARE BETWEEN 20-1000 DEG.C, PREF. 650-
850 DEG.C THE METHOD OF DEPOSITIONS IS NOT LIMITED BUT
A PECVD WITHOUT DIRECT HEATING OF THE DEPOSITIONS CHAMBER
WALLS IS PREF. USE/ADVANTAGE - DIAMOND HAS MANY
INDUSTRIAL APPLICATIONS. THERE ARE MANY PROCESSES KNOWN
WHERE IT IS SYNTHESISED UNDER HIGH PRESSURE, BUT THE
GRPWTN RATE TEND TO BE SLOW, REQUIRING LONG DEPOSITION
TIMES, AND THE APPT. TENDS TO BE BULKY AND EXPENSIVE.
THE METHOD PROVIDES DIAMOND SYNTHESIS THAR OVERCOMES
THESE DISADVANTAGES. 4PP DWG.NO.0/0.

专利号: (美国) US5075095A
专利权人: Crystallume

优先权日: 1987.4.15

公开日:

专利简介: 低压生产机械性能稳定的金刚石体—通过金刚石颗粒间接形成的金刚石颗粒集合体与氢原子接触形成性能稳定的金刚石体

309428

2011/29/12/02

PATENT NO.: -JP04504999W(920903) +WO-9009361A(900823) -AU-9050944A(900905) -DE-4090245T(920130) -GB-2246773A(920212).

TITLE : COMPOSITE OF DIAMOND AND (NON-)OXIDE CERAMIC MATRIX---PREPD. BY ELEVATED TEMP. AND PRESSURE TO FORM BODY COMPG. LESS THAN 70 PER CENT DIAMOND, USEFUL FOR ABRADING WHEELS.

PATENTEE : COMMONWEALTH SCI IND RE.

PATE CODS : CSIR.

IPC : 004B03552 ; 004B03564.

D.W. NO. : L02.

ACCE. NO : 90-275075.

LW/FW : 09242, 09036.

PRIORITY : 89021389AU-0002694 89021389AU-0002695.

ABS. : COMPOSITE COMPRISES MATRIX OF OXIDE OR NON-OXIDE CERAMIC, EXCLUDING SiC, AND LESS THAN 70 VOL.% DIAMOND PARTICLES WHICH ARE PREF. LESS THAN 100 MICRON AND ARE 20-40 VOL.% OF COMPOSITE. OXIDE CERAMIC IS PREF. OXIDE OF ELEMENT WITH ATOMIC NUMBER OVER 12 AND IS ESP. ALUMINA, YTTRIA, ZIRCONIA, COORDIERITE OR MULLITE, AND NON-OXIDE CERAMIC IS CPD. OF C,N OR B AND IS ESP. Si₃N₄, AlN, OR CARBIDE, TiB₂, B₄C, OR BN. COMPOSITE IS COMPACTED IN REDUCING ATOMS. AT HIGH TEMP. AND AT PRESSURE BELOW DIAMOND/GRAPHITE EQUILIBRIUM PRESSURE. PREF. CONDITIONS ARE (1) HOT PRESSING AT BELOW BOTH 1750 DEG.C. AND 100 MPa, AND ESP. IN GRAPHITE DIE TO PROVIDE REDUCING ATMOS. (2) HIP UP TO 180 MPa OR (3) SINTERING. USE - USEFUL FOR MACHINING COMPONENTS, SEALS ABRADING WHEELS, OR GEMSTONE POLISHING SURFACES. AlN/DIAMOND IS USEFUL FOR HIGH THERMAL CONDUCTIVITY USES.

专利号: (日本) JP04504999W

专利权人: Commonwealth Sci & Ind R

优先权日: 1989.2.13

公开日:

专利简介: 金刚石和(无)氧化物陶瓷胎体的复合材料一经过提高温度,加大压力等烧结参数,形成用于磨轮的金刚石含量小于70%的金刚石模块

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PATENT NO.: -JP92058945B(920918) +US-4923490A(900508) -EP-374515A(900627) -JP02218560A(900831).

TITLE : DIAMOND OR CUBIC BORON NITRIDE GRINDING WHEELS--
-CONTAINS MIXT. OF POLYCRYSTALLINE AND
MONOCRYSTAL PARTICLES IN METAL RESIN OR
VITREOUS MATRIX.

PATENTEE : SANYO KOKUSAKU PULP CO.

PATE CODES : SACK.

IPC : A23L001229 ; A23L00128 ; B24D00310 ;
C09K00314 ; C23C02600.

D.W. NO. : D13; L02; P61.

ACCE. NO : 90-178232.

LW/FW : 09242, 09023.

PRIORITY : 88121688US-0286450.

ABS. : PRODUCING YEAST EXTRACT COMPRISES REMOVING
YEAST MALODOUR, BITTER COMPONENT AND INHIBITOR FROM A RAW
YEAST EXTRACT AND CONCENTRATING THE COMPONENT OF THE
EXTRACT, USING AN ULTRAFILTRATION MEMBRANE. USED FOR
MEDICINE PRODN. FACILITIES. (J02219560-A) DWG.0/0.

专利号: (日本)JP92058945B
专利权人: Sanyo kokusaku pulp co.

优先权日: 1988.12.16

公开日:

专利简介: 金刚石或立方氮化硼磨轮—在金属树脂或玻璃质胎体中,聚晶金刚石
颗粒和单晶金刚石颗粒的混合体

PATENT NO.: JPO4268076A(920924).

TITLE : CERAMIC CUTTING TOOL WITH ANTI-PEELING
COMPOSITE DIAMOND COATING---COMPRISES CERAMIC
BASE WITH INTERMEDIATE AMORPHOUS CARBON FILM
CONTG. FLUORINE AND HYDROGEN AND VAPOUR PHASE-
SYNTHESIZED DIAMOND FILM.

PATENTEE : MITSUBISHI MATERIALS CORP.

PATE CODS : MITV.

IPC : B23B02714 ; G23C01622 ; G23C01626 ;
C30B02904.

D.W. NO. : L02; M13; P54.

ACCE. NO : 92-368535.

LW/FW : 09245, 09245.

PRIORITY : 91022091JP-0047593.

ABS. : CERAMIC BASE MATERIAL IS COATED WITH

INTERMEDIATE LAYER OF AMORPHOUS CARBON FILM CONTG. 1-
30AT.% OF F AND 1-30AT.% OF H, AND IS FURTHER COATED BY
GAS PHASE-SYNTHESIZED DIAMOND FILM. THE INTERMEDIATE
LAYER IS PERF. 0.1-10 MICRON THICK. THE CERAMIC BASE
MATERIAL IS PREF. A SILICON NITRIDE CERAMIC.

USE/ADVANTAGE - PROVIDES EXCELLENT CUTTING TOOL HAVING
HIGH ANTI-PEELING, COMPOSITE DIAMOND COATING. IN AN
EXAMPLE, A COMMERCIAL SILICON NITRIDE CERAMIC MATERIAL
WAS MACHINED TO FORM A TIP CONFORMING TO ISO SPGN 120308.
THE TIP WAS ETCHED TO PREPARE THE BASE MATERIAL OF Si2N4-
5%Y2O3-3%AL2O3 UNDER THE CONDITION OF 0.05TORR, 100W OF RF-
POWER, CF4 GAS, 50 SCCM GAS FLOW RATE, AND 20MIN.

TREATMENT. THE TIP WAS THEN SUBJECTED TO AMORPHOUS CARBON
FILM SYNTHESIS UNDER THE CONDITION OF 0.2TORR, 80W OF RF
POWER, CH4 + 20%HF, 20 SCCM OF GAS FLOW RATE. THE
AMORPHOUS CARBON FILM WAS FURTHER COATED BY THE GAS PHASE
SYNTHESIS DIAMOND FILM 5 MICRONS THICK IN MICROWAVE
PLASMA UNIT UNDER THE CONDITION OF 30TORR, 600W OF
MICROWAVE POWER, 1%CH4 + H2, AND 100 SCCM GAS FLOW RATE.
THE PREPD. TIP WAS USED AS THE CUTTING TOOL FOR DRY

MILLING UNDER THE CONDITION OF AL-18%SI OF WORK,
500M/MIN. CUTTING SPEED, 0.5MM CUTTING DEPTH, AND
0.3MM/REV. FEED. THE PEELING OF DIAMOND FILM OCCURRED
AFTER 36MIN. OF CUTTING. DWG.0/0.

专利号: (日本) JPO4268076A
专利权人: Mitsubishi materials corp

优先权日: 1991.2.20

公开日:

专利简介: 具有抗脱落成物的金刚石涂层陶瓷切削工具—陶瓷基底夹有氟的氢
的非晶体碳膜及汽相合成的金刚石薄膜

PATENT NO.: =US-5152060A(921006) +DE-3709278A(880929) =#0-
8806941A(880922)G =DE-3709278C(890302) =EP--
391895A(901017) =JP03500861W(910228) =EP--
391895B(920513)G.

TITLE : PRODUCING PRECISION MACHINED BORES IN
STRUCTURED BODIES---BY GROOVING FOIL USING
DIAMOND CUTTER AND FIXING LAYERS OF GROOVED
FOIL ON TOP OF EACH OTHER.

PATENTEE : KERNFORSCHUNGS KARLSRUHE.

PATE CODS : GESL.

IPC : B01D03910 ; B23B00548 ; B23C00328 ;
B23D00100 ; B23D04300 ; B23K00100 ;
B23K02016 ; B23P01500 ; B23P01700 ;
B32B00330 ; B32B00704 ; B32B03300 ;
B32B03500 ; F28D00900 ; G02B00518.

D.N. NO. : J04; P54; P55; P56; P73; P81; Q78.

ACCE. NO : 88-279318.

LW/PW : 09243, 08840.

PRIORITY : 87032087DE-3709278.

ABS. : FINELY-STRUCTURED BODY, E.G. HEAT EXCHANGER,
FINE FILTER, OR OPTICAL GRATING, IS MANUFACTURED BY
WRAPPING A METAL FOIL (1) OVER A MANDREL (2) OF A LATHE
SO THAT SUCCESSIVE GROOVES (3) CAN BE CUT BY A SHAPING
DIAMOND (4A), WHICH IS ADVANCED BY AN ADJUSTABLE FEED
(A.B). FOIL IS OVERLAPPED AT ITS OPPOSING EDGES (5) BY
E.G. WELDED, THE REGION OF THE WELD BEING PRESSED INTO A
RECESS (6) OF THE MANDREL BY A CLAMPING DEVICE (7).
ADVANTAGE - HIGH PRECISION FORMATION OF CHANNEL-LIKE
PERFORATIONS. DWG. 1/7.

专利号: (美国) US5152060A
专利权人: Kernforschungs Karlsruhe

优先权日: 1987.3.20

公开日:

专利简介: 在热交换器, 精致过滤器等结构体上生产精密的机加工孔一借助开槽
薄片, 利用金刚石切削具, 将开槽薄片固定在彼此的顶部

PATENT NO.: =EP--3241798(921028)E +EP--324179A(890719)E
=JF01183409A(890721) =2A-8900186A(891025) =US-
4959201A(900925).

TITLE : GREEN SYNTHETIC DIAMOND USED IN JEWELLERY---
PRODUCED BY IRRADIATING CLEAR YELLOW 1B TYPE
DIAMOND WITH ELECTRON BEAM AND HEAT TREATING IN
VACUUM.

PATENTEE : SUMITOMO ELEC IND KK.

PATE CODE : SAME.

IPC : A44C01700 ; B01J01908 ; B28D00500 ;
G01B03106 ; G30B02904 ; G30B03120 ;
G30B03300.

D.W. NO. : L02; P23; P64.

ACCE. NO : 89-208197.

LW/FW : 09244, 08929.

PRIORITY : 88011388JP-0005573.

ABS. : A GREEN DIAMOND CHARACTERISED IN THAT THE
NITROGEN CONTENT IN CRYSTALS IS 5×10^{16} TO 3×10^{19}
ATOMS/CM³, THE ABSORPTION COEFFT. OF H₂
CENTRES AT A WAVELENGTH OF 800 NM IS 0.3-6 CM⁻¹, THE
ABSORPTION COEFFICIENT OF THE LB TYPE NITROGEN AT A
WAVELENGTH OF 500 NM IS 0.05-1.5 CM⁻¹, AND THE
ABSORPTION COEFFICIENTS OF H₃ CENTRES, H₄ CENTRES, N-V
CENTRES AND GRI CENTRES IN THE VISIBLE REGION ARE NOT
MORE THAN 0.2 CM⁻¹. DWG.0/0.

专利号: (欧洲) EP3241798
专利权人: Sumitomo Elec Ind kk.

优先权日: 1988.1.13

公开日:

专利简介: 珠宝中的绿色人造金刚石—在真空条件下用电子束照射透明的黄色1B
型金刚石及热处理过程制造绿色人造金刚石

PATENT NO.: =JFC4242742A(920831) +DE-4142987A(920702).
TITLE : CUTTING SURFACE OF ALUMINIUMSUBSTRATE FOR
ELECTROPHOTOGRAPHIC PHOTORECEPTOR---WITH
SINTERED POLYCRYSTALLINE DIAMOND TOOL KEPT AT
CONSTANT TEMP. WITH CUTTING FLUID.

PATENTEE : KONICA CORP.

PATE SOLS : KONS.

IPC : B23B00100 ; B25P02500 ; B23Q01110 ;
B23Q01709 ; C10M10102 ; C10M10502 ;
C10M10512 ; C10M17300 ; C10N04020 ;
G03G00510.

D.W. NO. : G08; P54; P56; P84; S06.

ACCE. NO : 92-227264.

LW/FW : 09241, 09228.

PRIORITY : 90122890JP-0417446.

ABS. : THE SURFACE OF THE BASE COMPOSED OF AL
MATERIAL, IS CUT BY THE BITE WHILE SUPPLYING THE CUTTING
LIQ. ONTO THE SURFACE OF THE BASE. THE TEMP. SENSOR FOR
DETECTING THE TEMP. OF THE BIT IS INSTALLED, FOR
CONTROLLING THE TEMP. OF THE LIQ. AND THE SUPPLYING
QUANTITY OF THE LIQ. SO THAT THE TEMP. OF THE BITE IS
CONSTANTLY KEPT ON THE BASIS OF THE DETECTING SIGNAL OF
THE TEMP. SENSOR. THE CUTTING LIQ. IS WHITE LAMP
OIL, ALCOHOL., AN AQ. SOLN. OF SURFACTANT AND/OR WATER-
SOLUBLE ORGANIC SOLVENT, WATER-SOLUBLE ORGANIC SOLVENT
(NOT INCLUDING WATER), AND WATER. A BITE COMPOSED OF THE
POLYCRYSTALLINE DIAMOND SINTERED BODY IS USED FOR THE
ROUGH TREATMENT, AND THE FLAT BIT COMPOSED OF
MONOCRYSTALLINE DIAMOND AND POLYCRYSTALLINE DIAMOND
SINTERED BODY AND R BITE ARE USED FOR THE FINISHING
TREATMENT. USE/ADVANTAGE - THE LIFE OF THE BITE CAN
BE IMPROVED, AND THE STABILITY IN SIZE OF THE BASE OF THE
PHOTORECEPTOR CAN BE IMPROVED. DWG.0/6.

专利号: (日本)JP04242742A

专利权人: Konica corp

优先权日: 1990.12.28

公开日:

专利简介: 用于电子照相的光感受器铝基片表面的切削—用烧结聚晶金刚石工具
配合切削液并保持恒温

PATENT NO.: JPC4250981A(9.0997)
TITLE : GRINDING STONE FOR CUTTING OBJECTS WITHOUT SEIZURE DAMAGE---COMPRISES CARBONOR DIAMOND POWDER COATED WITH METAL OR CERAMICS, BOUND WITH DIAMOND OR BORON NITRIDE SUPER-ABRASIVE GRAINS.
PATENTEE : TOYODA MACHINE WORKS LTD.
PATE CODES : TOXA.
IPC : B24D00302.
D.W. NO. : L02; P61.
ACCE. NO : 92-345673.
LW/FW : 09242, 09242.
PRIORITY : 90122790JP-0407995.
ABS. : GRINDING STONE COMPRISES C OR DIAMOND POWDER COATED WITH A METAL OR A CERAMICS AS THE AGGREGATE, BOUND WITH DIAMOND OR CBN SUPER-ABRASIVE GRAINS. PREF. A GRINDING STONE WAS AFD. BY COATING THE DIAMOND OR CBN ABRASIVE GRAINS WITH A METAL OR CERAMIC AGGREGATE, AND BINDING THE COATED ABRASIVE GRAINS WITH A VITRIFIED-TYPE BINDER WHILE INCORPORATING PORES INSIDE THE GRINDING STONE. USE/ADVANTAGE - USED FOR CUTTING OBJECTS WITHOUT SEIZURE DAMAGE OF THE OBJECTS TO BE CUT. THE AGGREGATE IS EASILY CLEAVED UPON CONTACT WITH THE OBJECT TO RELAX THE FRICTION. DWG.0/2.

专利号: (日本) JP04250981A
专利权人: Toyoda Machine Works Ltd.

优先权日: 1990.12.27

公开日:

专利简介: 用于切削物体无损伤损害的磨石—金属或陶瓷涂于含碳或金刚石粉末与金刚石或氮化硼超微粒粘合

PATENT NO.: =AU-9211280A(920900) +EP---500278A(920930)2.

TITLE : COMPOSITE CUTTER INSERT FOR TWIST DRILL---HAS
BACK-TO-BACK INSERTS CUT FROM THIN LAYER OF
POLYCRYSTALLINE DIAMOND, COATED ONTO TUNGSTEN
CARBIDE.

PATENTEE : DE BEERS IND DIAMOND DIV.

DATE OF DISCLOSURE : 1991.3.1

IPC : B23B02720 ; B23B05102 ; B23P01532.

D.W. NO. : P54; P56.

ACCE. NO. : 92-325530.

LW/FW : 09244, 09240.

PRIORITY : 91030191GB-0004366.

ABS. : THE PRODUCTION METHOD FOR PRODUCING A COMPOSITE
CUTTER INSERT INVOLVES CUTTING AN INTERMEDIATE BLANK (16)
FROM A COMPOSITE DISC (10) COMPRISING A RELATIVELY THICK
LAYER OF TUNGSTEN CARBIDE (20) COATED ON ONE FACE WITH A
THIN LAYER OF POLYCRYSTALLINE DIAMOND STRIP (18).
PAIRS OF INSERTS (22.1, 22.2) ARE CUT FROM THE BLANK
PROVIDING CHEVRON SHAPED CUTTING EDGES (26, 28) WHICH ARE
THEN BONDED BACK-TO-BACK TO FORM A COMPOSITE CUTTING
INSERT (24) WITH CUTTING EDGES ON OPPOSITE SIDES OF THE
CENTRAL PLANE. THE COMPOSITE CUTTER INSERT IS LOCATED IN A
SLOT CUT IN THE END OF A TWIST DRILL. USE/ADVANTAGE--
LESS EXPENSIVE TO PRODUCE, CAN BE FITTED TO CONVENTIONAL
TWIST DRILL BLANKS ELIMINATES STRESS FOUND IN THREE LAYER
SANDWICH MATERIALS.

专利号: (澳大利亚)AU9211280A

专利权人: De Beers Ind Diamond Div

优先权日: 1991.3.1

公开日:

专利简介: 麻花钻复合刀具镶嵌一镶嵌槽中硬质合金上镀有聚晶金刚石薄层

PATENT NO.: =JP04260435A(920916) +WO-9214542A(920903)J.
 TITLE : IMPROVED PROCESS FOR SYNTHESISING DIAMOND
 CRYSTAL, FOR OPTICAL PARTS---USES TEMP.
 DIFFERENCE METHOD TO GROW CRYSTAL IN SOLVENT
 ALLOY. FROM MIXED, ALTERNATE, ITERATIVE, ETC.,
 AND REMOVES NITROGEN FROM SOLVENT BY USING
 NITROGEN GETTER.
 PATENTEE : SUMITOMO ELECTRIC CO.
 PATE CODE : NONE.
 IPC : B01J00306 ; C01B03106 ; C30B01902.
 D.W. NO. : E36; J04; L02; L03; V08.
 ACCE. NO. : 92-315978.
 LW/FW : 09244, 09238.
 PRIORITY : 91021591JP-0022240 91031491JP-0075622
 91092491JP-0243135 91082991JP-0244924
 91111891JP-0301813 91111991JP-0303197
 91112691JP-0310618.
 ABS. : IN THE SYNTHESIS OF DIAMOND BY TEMP. DIFFERENCE
 PROCESS, AN ALLOY OF XFE-YCO-ZAL SYSTEM (IN WHICH X, Y
 AND Z (IN WT PERCENT) SATISFY $Y = 20-90$ AND Z AT MOST 2)
 IS USED AS THE SOLVENT. SOLVENT (IN WHICH A TRACE
 AMT. OF ONE OR MORE ELEMENTS CHOSEN FROM B, GA, BE, IN
 AND LI IS ADDED TO THE XFE-YCO-ZAL SYSTEM ALLOY) IS PREF.
 USED AS THE SOLVENT TO OBTAIN DIAMOND OF EVEN HIGHER
 CLARITY. THE AMT. OF THE ELEMENT CHOSEN FROM B, GA, BE,
 IN AND LI TO BE ADDED IS PREF AT LEAST 25 PPM AND AT MOST
 2 WT PERCENT. USE/ADVANTAGE - COLOURLESS AND
 TRANSPARENT SYNTHESISED DIAMOND HAVING NO NITROGEN
 ABSORPTION IN INFRARED REGION IS PRODUCED UNDER
 STABILISED CONDITIONS AT LOW COST. Dwg.0/2.

专利号: (日本) JP04260435A
 专利权人: Sumitomo Electric co

优先权日: 1991.2.15

公开日:

专利简介: 人造金刚石单晶体在光学方面的改善工艺—利用温度差方法在含铁、
 镍、铝、钛等离子的溶剂中生长晶体,然后用氮气吸收碳走溶液中氮

PATENT NO.: 501258A(920902) +US-5119714A(920909) =EP-

-501258A(920902)E.

TITLE : DIAMOND FILLED COMPACTS FOR ROTARY ROCK BIT FOR
EARTH BORING---HAVE HARD METAL JACKETS AND
INTEGRALLY FORMED SINTERED DIAMOND CORES,
EXPOSED TO FORM CUTTING EDGES.

PATENTEE: : HUGHES TOOL CO.

PATE CODS : HUGH.

IPC : B 21K00502 ; E21B01046 ; E21B01050.

D.W. NO. : H01; P52; Q49.

ACCE. NO : 92-215818.

IN/F4 : 09245, 09226.

PRIORITY : 91030191US-0662935.

ABS. : THE METHOD OF MANUFACTURE COMPRISES FORMING A
DIAMOND FILLED COMPACT FROM A HARD METAL JACKET WITH AN
OPEN END AND OPEN INTERIOR. THE INTERIOR IS FILLED WITH A
DIAMOND MATERIAL WHICH IS THEN SINTERED TO FORM A DIAMOND
CORE IN A METAL JACKET. THE OUTER METAL JACKET IS THEN
REDUCED TO A SIZE TO CONFORM TO A CUTTING INSERT POCKET
PROVIDED ON A ROTATABLE CUTTER. THE TOP SURFACE BEING OF
EXPOSED DIAMOND (AT LEAST 75% OF THE TOP SURFACE). THE
IMPROVED COMPACT IS INSTALLED IN A RECEIVING POCKET ON
THE ROTATABLE CUTTER. ADVANTAGE - THE IMPROVED
COMPACTS ARE USED AS GAGE AND HEEL ROW COMPACTS WHEN
INSERTED IN MATING RECESSES ON THE EXTERIORS OF ROTATABLE
CONES.

专利号: (美国) US-5119714A
专利权人: Hughes tool co

优先权日: 1991.3.19

公开日:

专利简介: 用于回转牙轮钻头的充填的金刚石的复合体一硬质合金外壳和整体上
形成烧结的金刚石芯部露在外形成了切削刀刃

PATENT NO.: =IT-1233124B(920314) +US-4903678A(900227) =ES-2015821(900901) =CN-1041903A(900509).

TITLE : METHOD OF DRESSING GRINDING WHEELS—INCLUDES EXECUTING PASSES OF DIAMOND NIB PARALLEL TO WHEEL ROTATION AXIS.

PATENTEE : WESTINGHOUSE ELECTRIC COR.

PATE CODE : WESE.

IPC : B24B05308 ; B24D00718 ; B24D01800 ; F01D00530.

D.W. NO. : P61; Q51.

ACCE. NO : 90-115011.

LW/FW : 09241, 09015.

PRIORITY : 88101488US-0257901.

ABS. : THE METHOD INVOLVES ADVANCING A DIAMOND NIB (6) ADJACENT THE OUTER CIRCUMFERENCE OF THE WHEEL (2) WHILE THE WHEEL (2) ROTATES ABOUT ITS AXIS. THE METHOD INCLUDES CAUSING THE DIAMOND NIB (6) TO EXECUTE PASSES IN A DIRECTION PARALLEL TO THE AXIS OF WHEEL (2) ROTATION WHILE DISPLACING THE NIB (6) PERPENDICULAR TO THE AXIS OF WHEEL (2) ROTATION IN A PATTERN CORRESPONDING TO THE PROFILE TO BE CREATED AT THE WHEEL (2) CIRCUMFERENCE. THE PROFILE INCLUDES AT LEAST ONE ANNULAR GROOVE HAVING AT LEAST ONE SIDE WALL WHICH EXTENDS IN A GIVEN ANGULAR DIRECTION AT AN ANGLE OF NO GREATER THAN 20 DEG. TO A PLANE PERPENDICULAR TO THE AXIS OF WHEEL (2) ROTATION. THE WHEEL (2) IS PROVIDED WITH A CIRCUMFERENTIAL PORTION (14) WHICH WILL NOT BE USED FOR A SUBSEQUENT GRINDING OPERATION AND THE NIB (6) IS DRIVEN IN ORDER TO FORM, ON THE CIRCUMFERENTIAL PORTION (14), AN INCLINED SURFACE (16) WHICH EXTENDS IN THE GIVEN ANGULAR DIRECTION AT AN ANGLE TO A PLANE PERPENDICULAR TO THE AXIS OF WHEEL (2) ROTATION WHICH IS GREATER THAN THE ANGLE OF THE AT LEAST ONE GROOVE WALL. USE - A METHOD FOR DRESSING A GRINDING WHEEL (2). 4PP DWG.NO.1/1.

专利号: (意大利) IT1233124B

专利权人: Westinghouse Electric Co

优先权日: 1988.1.4

公开日:

专利简介: 磨轮整形法—在平行于磨轮旋转轴的方向, 金刚石尖刃进行整形操作

Patent No.: #US-5149938A(920922), #AU-9215798A(920625)
#AU-9215798A(920625)
#US-5149938A(920922).

TITLE : MARKING PROCN ON DIAMONDS---BY UV LASER
IRRADIATION THROUGH A MASK OF SYNTHETIC FIBRE.

PATENTEE : WINSTON SA HARRY.

FILE CLS : FINS-

IPC : A44C01700 ; B23K02600 ; B24B00000 ;
B44D00500 ; C01B00000 ; C30B02904 ;
G01N04500 ; G09F00716 ; H01S00000.

D.W. NO. : F01; L02; M21; P23; P55; P61; P78; P85; S03;
T05.

ACCE. NO : 92-217213.

LW/FW : 09241, 09226.

PRIORITY : 90101190US-0595861 91100891US 0770446.

ABS. : METHOD COMPRISES (A) POSITIONING A MASK BETWEEN

AN OUTPUT OF AN EXCIMER LASER AND A PORTION OF THE
DIAMOND TO BE MARKED, AND (B) DIRECTLY IRRADIATING THE
PORTION THROUGH THE MASK TO CREATE THE MARK IN THE
DEFINED PATTERN. THE IRRADIATION IS WITH AT LEAST ONE
ENERGY PULSE AT 193NM. MASK HAS AREAS OF DIFFERENT
TRANSMISSIVITIES AND IS SPACED AWAY FROM THE SURFACE OF
THE DIAMOND. MASK IS OF PAPER, OR ONE OF FUSED QUARTZ,
SILICA OR SAPPHIRE. LAYER OF DIAMOND REMOVED HAS A
THICKNESS OF SEVERAL ANGSTROMS TO SEVERAL MICRONS.
DIAMOND MAY BE COATED WITH A FLUORESCENT OR
PHOSPHORESCENT MATERIAL OR ELECTRICALLY OR MAGNETICALLY
DETECTABLE MATERIAL BEFORE IRRADIATION. ADVANTAGE -
RELATIVELY RAPID MARKING WITHOUT THE NEED FOR COMPUTER
DRIVEN X-Y TABLES, REDUCED RISK OF DAMAGE TO THE STONE,
VARIOUS GREY SHADES CAN BE FORMED AND GOOD LINE
DEFINITION. DWG.1/3.

专利号: (美国) US5149938A
专利权人: Winston Sa Harry

优先权日: 1990.10.11

公开日:

专利简介: 金刚石上的标记制做--发射激光, 穿透人造纤维罩

PATENT NO.: +EP--467043A(920122) =CA-2042210A(911214)
 =JPC4228497A(920618) =ZA-9104159A(920624).

TITLE : APPTS. FOR FORMING CVD DIAMOND SHEET---USING
 POLISHED SUBSTRATE, COATED SUBSTRATE OR SLOW OR
 DELAYED COOLING REGIME TO ALLOW SHEET TO BE
 REMOVED INTACT.

PATENTEE : GENERAL ELECTRIC CO.

PATE CODES : GENE.

IPC : B01J00000 ; C01B03106 ; C23C01626 ;
 C30B02518 ; C30B02904.

D.W. NO. : L03; M13; V08.

ACCE. NO : 92-025930.

LW/FW : 09294, 09210.

PRIORITY : 90061390US-0537963.

ABS. : APPTS. FOR DEPOSITION OF A DIAMOND SHEET BY CVD
 INVOLVES A UNIFORMLY SMOOTH SUBSTRATE SURFACE WHICH
 PROVIDES UNIFORM ADHESION TO RETAIN THE DIAMOND DURING
 DEPOSITION, BUT WEAK ENOUGH TO ALLOW REMOVAL OF THE
 DIAMOND WITHOUT BREAKAGE AFTER DEPOSITION. THE
 SUBSTRATE PREF. HAS ROUNDED CORNERS AND EDGES AND IS
 PREF. FREE OF RECESSES, PROTRUSIONS OR SHARP EDGES. THE
 SUBSTRATE IS FREE OF INDENTATIONS OR PROTRUSIONS OF MORE
 THAN 0.3 MICRON. THE SUBSTRATE IS SIC, WC OR MO, ESP. MO.
 IN AN ALTERNATIVE EMBODIMENT, THE SUBSTRATE IS COATED
 WITH A SUITABLE MATERIAL FOR FACILITATING RELEASE OF THE
 DIAMOND, PREF. A BN SLURRY; BN, CE OXIDE, GRAPHITE OR FE
 OXIDE POWDER; FERRIC FERROCYANIDE; B; OR MOC. THE
 SUBSTRATE MAY ALSO BE PRE-REACTED WITH C OR B TO FORM A
 SURFACE COATING. USE - IN PRODN. OF E.G. DIAMOND
 WINDOWS FOR LASERS. 11PP DWG.NO.4/4).

专利号: (欧洲) EP467043A
 专利权人: General Electric Co

优先权日: 1990.6.13

公开日:

专利简介: 生产化学气相沉积金刚石薄片的装置一利用激光基片或涂层基片,或
 用缓慢的方法或延迟冷却的方式将金刚石薄片完好地移动

PATENT NO.: =DE-4006660C(921008) -DE-4006660A(910905) =EP-
-44568A(910911).

TITLE : GRINDING DISC FOR PROFILING SPECTACLE LENS
EDGES---HAS PLASTIC BODY WITH OUTER ABRASIVE
EDGE OF DIAMOND PARTICLES IN METAL. E.G.
BRONZE, AND A SUPPORTING COPPER RING.

PATENTEE : WINTER E SOHN GMB.

PATE CODES : WINT-

IPC : B24B00914 ; B24D00500 ; B24D01800.

D.W. NO. : A88; L02; P61.

ACCE. NO : 91-268119.

LW/FW : 09241, 09137.

PRIORITY : 90030390DE-4006660.

ABS. : GRINDING DISC FOR GRINDING THE EDGES OF
SPECTACLE LENSES HAS A CIRCULAR BODY OF PLASTIC MATERIAL
(3) ON WHICH IS A ONE-PIECE SOLID RING OF CU OR BRONZE. A
GRINDING LAYER (1) IS SINTERED ON TO THE RING AND
CONSISTS OF DIAMOND AND METAL. ITS THICKNESS IS PREF. 3
MM OR LESS, WHILE THE RING IS 3-10 MM THICK.
ADVANTAGE - ALLOWS PRECISION GRINDING OF EXTREMELY
BRITTLE AND THIN GLASS. DWG. 1/2.

专利号: (德国) DE4006660C
专利权人: Winter E & Sohn Gmb

优先权日: 1990.3.3

公开日:

专利简介: 用于研磨软焦点透镜的磨盘--在塑性物体的外研磨刃金属(如铜)上有
金刚石颗粒且有一支撑环

PATENT NO.: +SU--853956A(911030).
TITLE : PREPN. OF SYNTHETIC DIAMOND IN MICRON SIZE---BY
HEAT-TREATING POLYVINYL-CHLORIDE COKE AND
CALCINING AT HIGH PRESSURE.
PATENTEE : AS USSR HIGH PRESSURE PHY.
PATE CODS : ASHI=.
IPC : C01B03106.
D.W. NO. : :A97; E36; L02.
ACCE. NO : 92-247806.
LW/PW : 09230, 09230.
PRIORITY : 76041276SU-2345163.
ABS. : THE STARTING MATERIAL OF CHANNEL BLACK, OR COKE
FROM COMBUSTION OF POLYVINYLIDENE CHLORIDE, IS HEAT-
TREATED AT 1200 DEG.C FOR 30 MIN., THEN CALCINED AT 1200-
2000 DEG.C AND PRESSURE OF 100-200 KBAR FOR 3-4 MIN.
USE/ADVANTAGE - THE DIAMOND CRYSTALS OF MICRON SIZE ARE
OBTD. WITH YIELD OF 90-95%, WHICH IS 1.5-2 TIMES GREATER
THAN THE YIELD OF CRYSTALS OBTD. WITHOUT PRIOR HEAT-
TREATMENT. BUL.40/30.10.91 DWG. 0/0.

专利号: (苏联) SU853956A

专利权人: AS USSR HIGH PRESSURE PH

优先权日: 1976.4.20

公开日:

专利简介: 微型人造金刚石的制备--对聚氯乙烯焦炭进行热处理和高压煅烧