

A method for obtaining of semi-conductor diamonds comprises the effect of high pressure on graphite and boron-containing solvent of carbon at high temperature. Effect by high pressure and temperature is carried out at modes, which correspond the range of diamond stability, namely: pressure above 6.5 GPa and temperature above 2000 K, at that is used solvent of carbon is used, which as boron-containing component contains not less than 0.1 w/w of bore and additionally at least one of metals of the following row: metals of IVa group, and also aluminium, at that row components are taken as compounds and/or alloy.