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New Superhard Plates Made of Cutting Ceramics for Equipping the Tools and Their Application

Abstract: A methodology aimed at studying the superhard plates made of cutting ceramics of new chemical composition for equipping the tools used as part of CNC machines has been proposed. The practical significance of the work lies in creation of the new superhard plates from the cutting ceramics based on oxides of silicon, aluminum and carbides of tungsten, tantalum, titanium and other chemical compounds supplementary added to the composition, for equipping the tools used for cutting the hard-to-process, heat-resistant hard materials and alloys.