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STEM analysis of WC-Co coatings modified by nano-sized TiC and nano-sized WC addition

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ABSTRACT

Thermally sprayed hardmetal WC-Co-based coatings are widely applied in order to provide good wear resistance to mechanical components working in demanding environment. The WC-Co coatings are obtained by various spraying methods such as High Velocity Oxygen Fuel (HVOF) or High Velocity Air Fuel (HVAF) techniques. Additional improvement of coatings properties can be achieved by adding very fine carbides to the WC-Co powder

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