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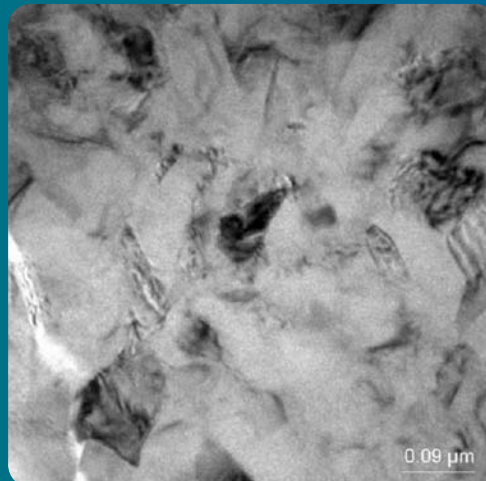
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115

Authors: L.A. Dobrzański and L.W. Żukowska in the paper entitled "Structure and properties of gradient PVD coatings deposited on the sintered tool materials" on a **page 115** investigate the structure and properties of sintered tool materials, including cemented carbides, cermets and oxide ceramics deposited with single-layer and gradient coatings (Ti,Al)N and Ti(C,N), and determine the dependence between the substrate type, coating material or linear variation of chemical composition and the structure and properties of the obtained tool material. Results of the investigation of the influence of PVD coatings structure (single-layer or gradient) and kind on properties of coated tool materials. Coatings are characterised by dense, compact structure. The coatings were deposited uniformly onto the investigated substrate materials and show a characteristic columnar, fine-graded structure. The coatings deposited onto the investigated substrates are characterised by good adhesion and causes the increase of wear resistance. Gradient coatings are characterised by a linear change of chemical composition in the direction from the substrate to the coating surface. A more advantageous distribution of stresses in gradient coatings than in respective single-layer coatings yields better mechanical properties, and, in particular, the distribution of stresses on the coating surface has the influence on micro-hardness, and the distribution of stresses in the contact area between the coating and substrate has the influence on the adhesion of coatings. An analysis of the structure (SEM, TEM), an analysis of the mechanical and functional properties: surface roughness, micro-hardness tests, scratch tests, cutting tests were carried out. The Ti(C,N) and (Ti,Al)N gradient coating were investigated by XPS and AES method. X-ray qualitative phase analysis and the grazing incidence X-ray diffraction method (GIXRD) was employed to collect the detailed information about phase composition of investigated material's surface layer. Computer simulation of stresses was carried out in ANSYS environment, using the FEM method and the experimental values of stresses were determined basing on the X-ray diffraction patterns.