

Electron backscatter diffraction (EBSD) characterisation of titanium alloys

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Abstract

Titanium and its alloys have been widely studied using electron backscatter diffraction (EBSD). Both, mechanical preparation and electropolishing methods are successfully applied to reveal the microstructure of investigated materials. The advantages and disadvantages of these methods in terms of EBSD observations were compared. Preparation of titanium specimens from cutting, mounting, grinding to polishing was discussed. Additional software approaches to maximize the final output of EBSD observations were presented as well.