

B. Obst, Vortrag an der Universität Genf, 17.01.2002.

Title and Abstract:

Microtexture Determination by Electron BackScatter Diffraction

The scanning electron microscope diffraction based technique "EBSD", a standard analytical method, is reviewed. Applications to orientation determination, measurement of the local stored energy in a sample, and the quantitative analysis of grain and subgrain structures are given. It is shown that "grain reconstruction" is a powerful tool to make out texture components in a material that has been processed. With EBSD grain boundary misorientations and boundary types are readily probed, too.

The performance of the latest software from HKL Technology, CHANNEL 5, is discussed and it is pointed out that in determining the reliability of the final EBSD measurement accurate calibration of the projections parameters and the detector orientation is crucial.