

Nanoindentation of Aluminum Single Crystals: Experimental Study on Influencing Factors

Pavel Filippov ^{1*} and Ursula Koch ²

¹ Munich University of Applied Sciences, Munich, Germany; Department of Earth- and Environmental Science, Ludwig-Maximilian-University, Munich, Germany; pavel.filippov@hm.edu

² Munich University of Applied Sciences, Munich, Germany; u.koch@hm.edu

* Correspondence: pavel.filippov@hm.edu; Tel.: +49(0)89-1265-3649

Received: 10 October 2019; Accepted: 6 November 2019; Published: 8 November 2019

Keywords: Nanoindentation; aluminum; single crystal, micromechanics

1. Supplementary material: Residual analysis

The residuals e are calculated as the difference of the measured value y and the modelled value y' :

$$e = y - y' \quad (1)$$

The respective residuals are calculated on the basis of data shown in Figure 8 (H_{IT}) and Figure 9 (M).

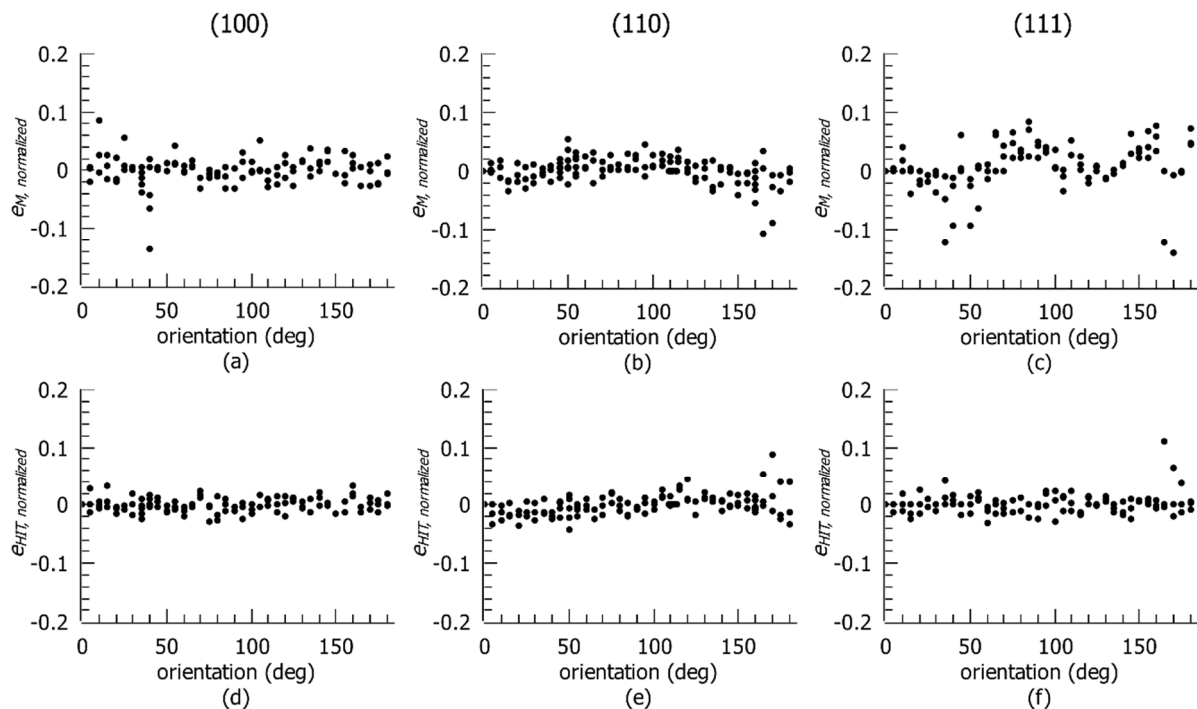


Figure S1 – Residual analysis of the fit to the azimuthal indenter orientation: $e_{M,normalized}$: a) (100)-orientation, (b) (110)-orientation and (c) (111)-orientation. $e_{HIT,normalized}$: a) (100)-orientation, (b) (110)-orientation and (c) (111)-orientation



© 2019 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).