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► **To cite this version:**

Magsud Masimov. Electron diffraction analysis of dislocation- induced substructure evolution of Al crystals in compression. Philosophical Magazine, 2007, 87 (10), pp.1565-1573. 10.1080/14786430601069792 . hal-00513802

HAL Id: hal-00513802

<https://hal.science/hal-00513802>

Submitted on 1 Sep 2010

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Journal:	<i>Philosophical Magazine & Philosophical Magazine Letters</i>
Manuscript ID:	TPHM-06-Mar-0072.R3
Journal Selection:	Philosophical Magazine
Date Submitted by the Author:	13-Oct-2006
Complete List of Authors:	Masimov, Magsud; TU Bergakademie Freiberg, Institute of Material Science
Keywords:	aluminium, dislocations, EBSD, TEM, X-ray diffraction
Keywords (user supplied):	lattice rotations, disorientations



Figure Captions

1. Fig. 1. Deformation – induced substructure in a [002] – oriented Al single crystal after compression to $\varepsilon = 0.5$, is taken from [1]
2. Fig. 2. Evolution of the disorientation distribution $f(|\Theta|)$ in dependence on the strain
3. Fig. 3. Apparent disorientation distribution $f(|\Theta|_{irr})$ measured with a dislocation – free Si single crystal
4. Fig. 4 Disorientations $\langle|\Theta|\rangle$ and $\langle|\Theta|\rangle_{rel}$ of compressed Al crystals in dependence on the strain
5. Fig. 5 Mean chord lengths of the meso-scale substructure of compressed Al substructure as determined by TEM, EBSD, and XRD
6. Fig. 6. Determination of the number of correlated dislocation walls and the saturation disorientation $\langle|\Theta_\infty|\rangle$ (Example: $\varepsilon = 1.92$)
7. Fig. 7. Distributions $f(n_{BC})$ of the band – contrast number n_{BC} of the compressed Al in comparison with that of a perfect Si single crystal
8. Fig. 8 . Integrated widths B_{BC} of the distributions $f(n_{BC})$ and mean total dislocation densities ρ_d of Al in dependence on the strain

Figures

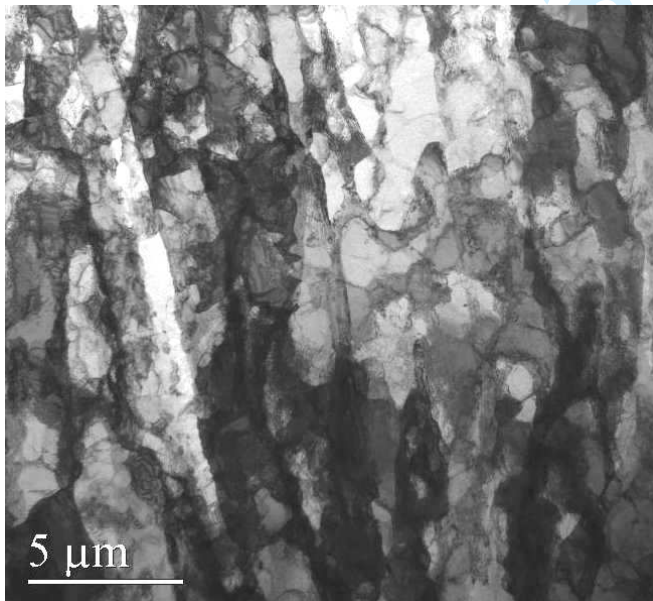


Fig. 1

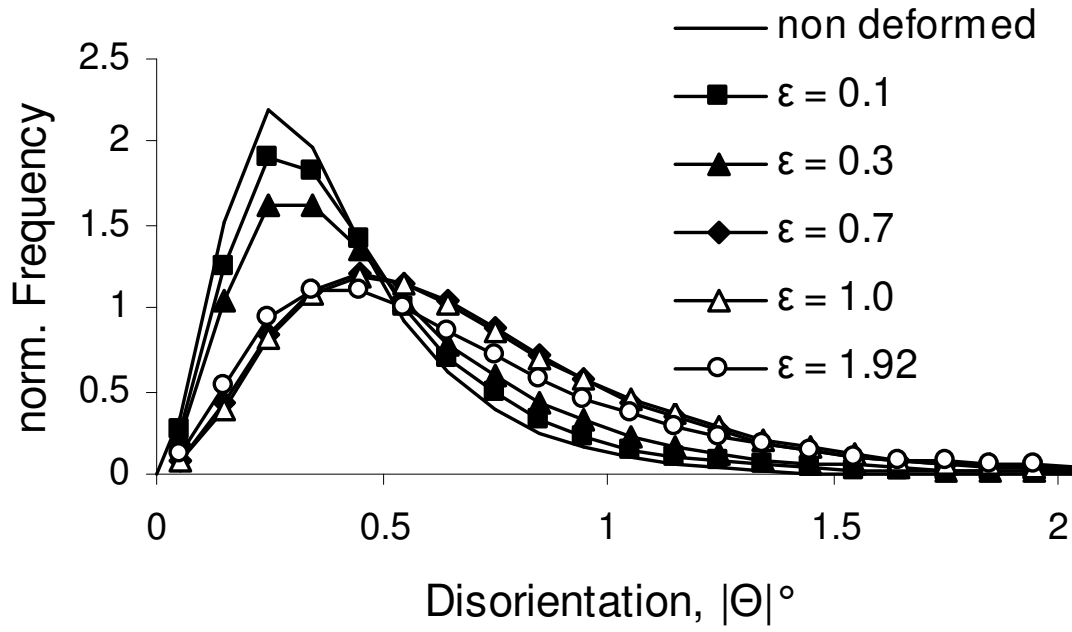


Fig. 2

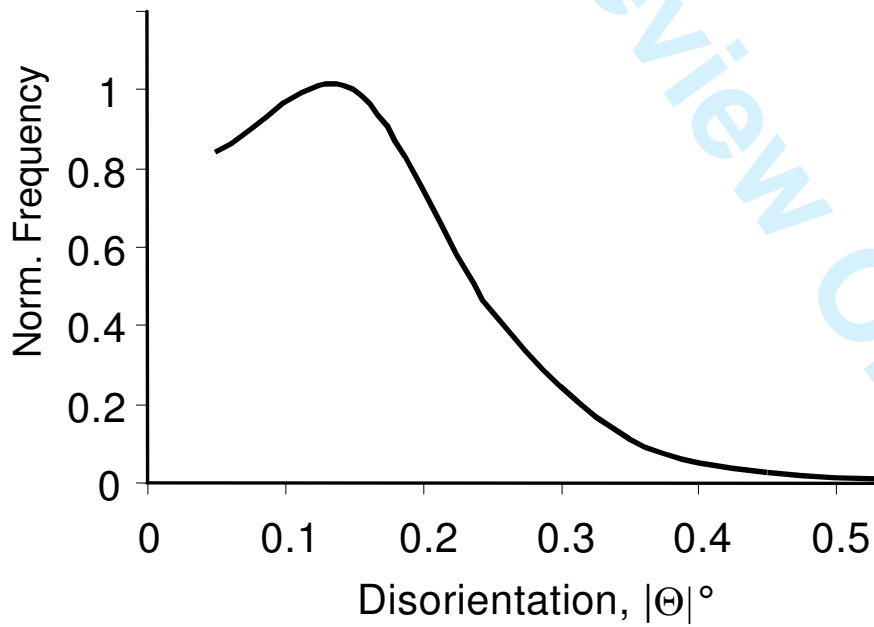


Fig. 3

Fig. 4

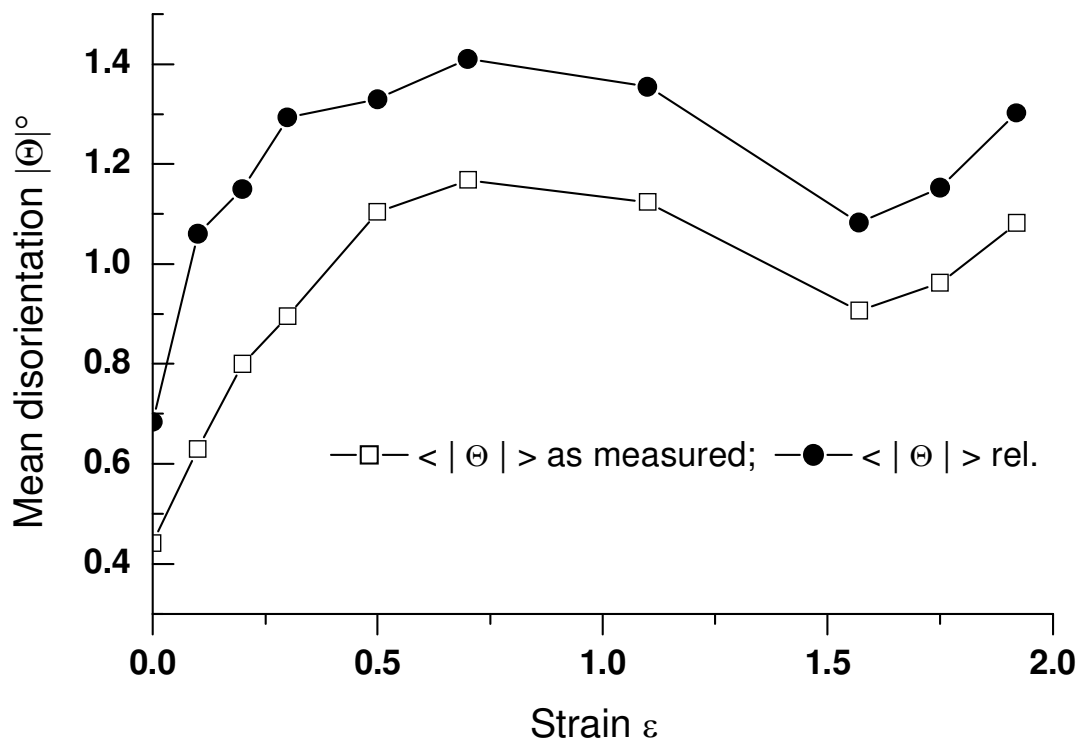


Fig. 4

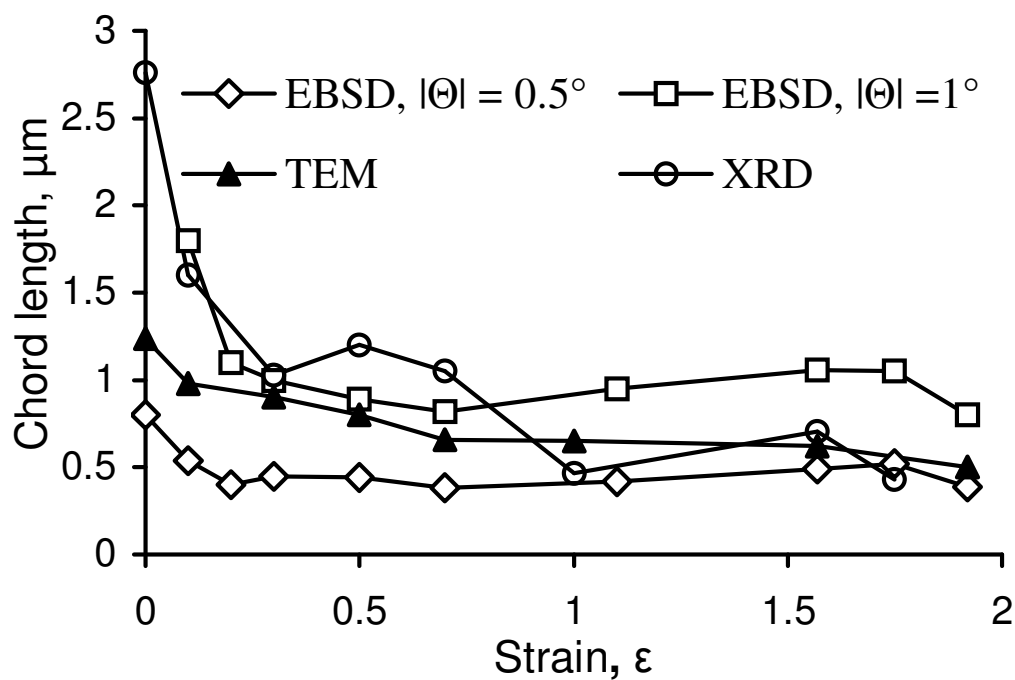


Fig. 5

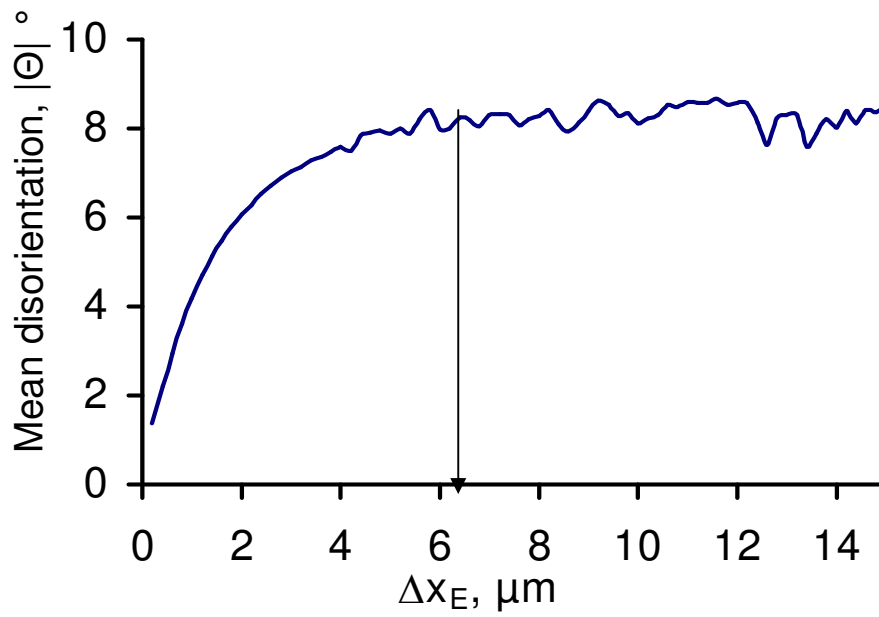


Fig. 6

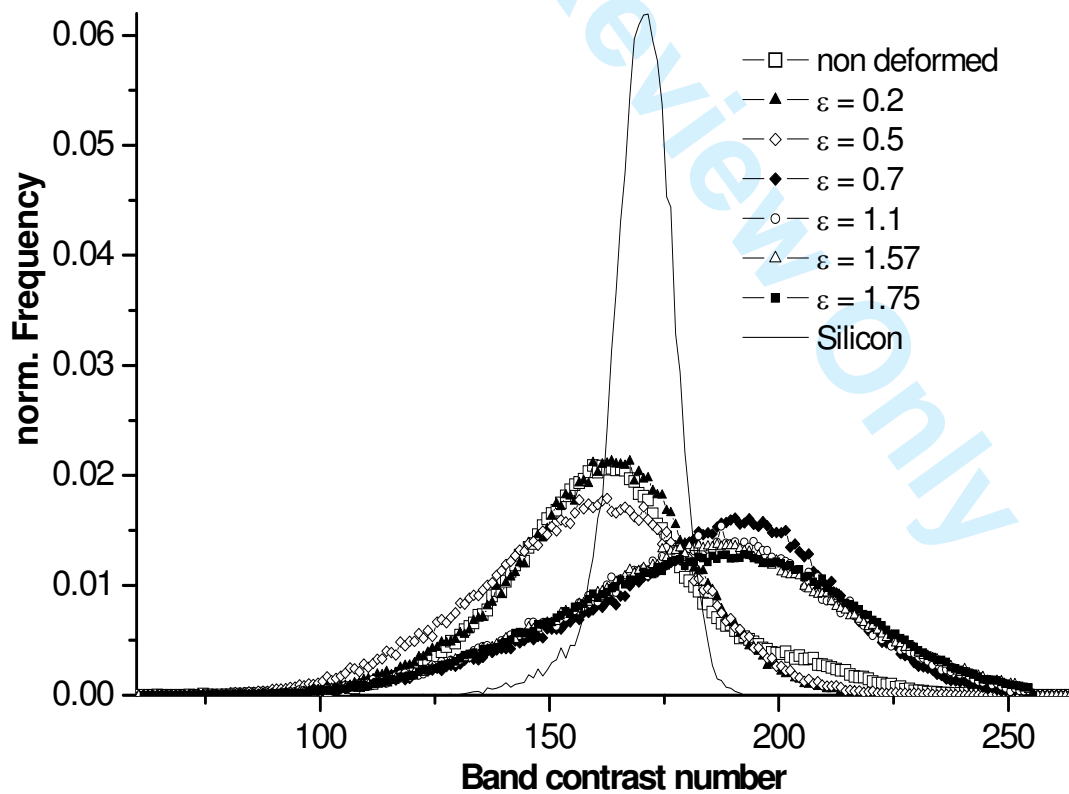


Fig. 7

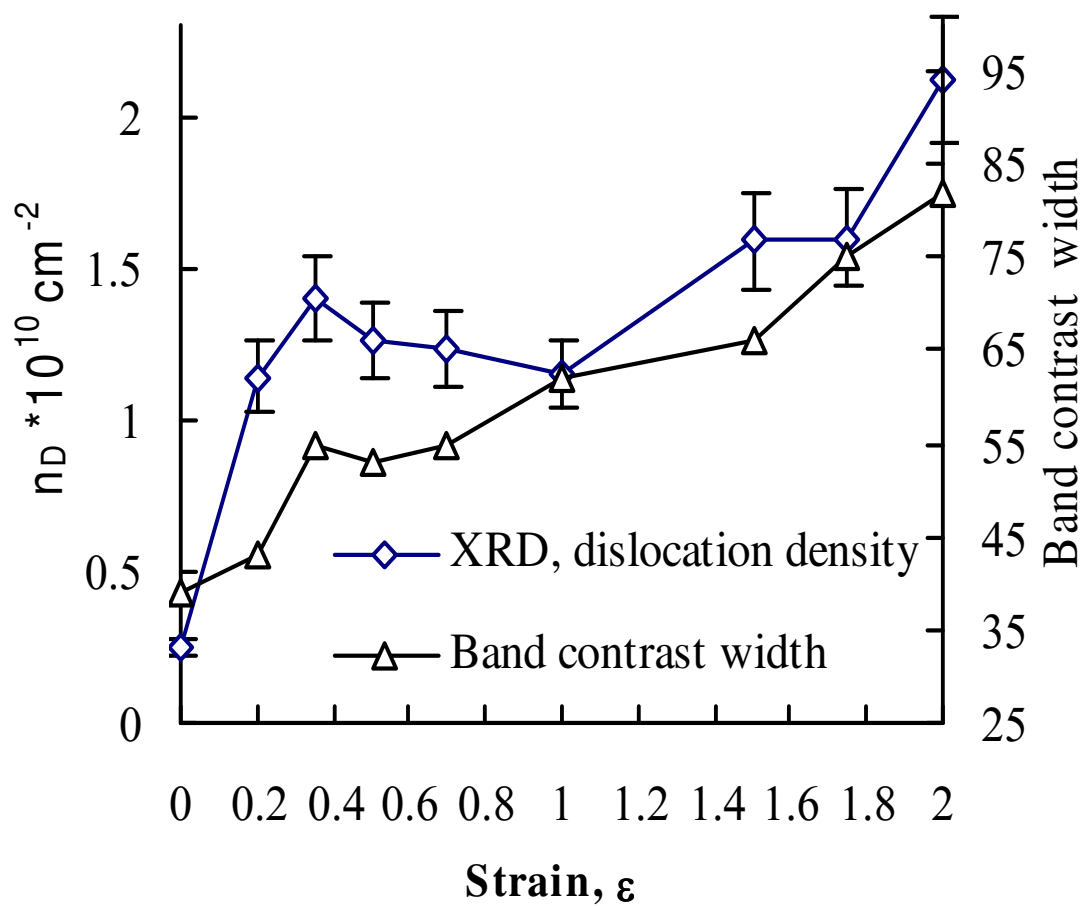


Fig. 8

view Only