



Correction to: Structural and crystallographic characterization of grain boundaries coarse particles in an Al–Mg–Si alloy, using convergent beam electron diffraction

M. I. Daoudi^{1,2} · A. Triki² · A. Redjaïmia³

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Correction to: Applied Physics A (2022) 128:386
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The email address of the third author, A. Redjaïmia is forgotten.

abdelkrim.redjaïmia@univ-lorraine.fr.

- In the abstract line 5 and page 2 of 10 the Sect. 2 s paragraph line 9 from the up: The sentence should read:

...transmission electron microscopy using convergent beam electron diffraction (CBED) in microdiffraction mode...

- The presentation of Table 1, Table 3, and Table 4 was incorrect. The correct Table 1, Table 3, and Table 4 are given below.
- Page 2 of 10, Sect. 2 line 1 from the bottom: The sentence should read:

Al–Mg–Si.

The original article can be found online at <https://doi.org/10.1007/s00339-022-05518-9>.

✉ M. I. Daoudi
daoudi.mourad@univ-guelma.dz; mourdaoudi@yahoo.com
A. Redjaïmia
abdelkrim.redjaïmia@univ-lorraine.fr

¹ Department of Science of Matter, Faculty of Mathematics and Computer Science and Material Science, University 8 Mai 1945, Guelma, Algeria

² LM2S Laboratory, Faculty of Sciences, University of Annaba, Annaba, Algeria

³ Institut Jean Lamour, UMR 7198 CNRS, Université de Lorraine, 54011 Nancy, France

- Page 4 of 10, third paragraph line 3 from the up: Should read:

Tables II and VII.

- Page 4 of 10, third paragraph line 6 from the up the Ideal symmetries should be underlined and written without spaces: Should read:

The ideal symmetries $\{(2\bar{m}m); \underline{2mm}\}$ and $\{(\underline{6}); \underline{3}\}$ of the ZOLZ and the WP, ...

- Page 4 of 10, third paragraph line 9 from the up: Should read:

... group $m\bar{3}$ or $2/m\bar{3}$ in

- Page 5 of 10, first column line 2 from the bottom: Should read:

... Fig. 6b ...

- Page 5 of 10, second column line 1 from the up: Should read:

... Fig. 6a ...

- Page 6 of 10, in the caption, to Fig. 5 the Ideal symmetries should be underlined and written without spaces. The correct version is given below.

Figure 5 Microdiffraction patterns from GBCP recorded along two zone axes a) $\langle 001 \rangle$ and b) $\langle 111 \rangle$, respectively. These two diffraction patterns exhibit the following symmetry: a) $\{(4mm); \underline{2mm}\}$; $\{4mm; \underline{2mm}\}$ ZOLZ and WP symmetries along $\langle 001 \rangle$ zone axis, b) $\{(6mm), \underline{6}\}$; $\{3m\bar{3}\}$ ZOLZ and WP symmetries along $\langle 111 \rangle$ zone axis

Table 1 Orientation relationships (OR) variants between the cubic α -Al(Mn, Fe)Si phase and the aluminum matrix (m)

Phase	OR	Ref
$\alpha - Al(Mn, Fe)Si$	$[\bar{1}\bar{1}\bar{1}]_{\alpha} // [\bar{1}\bar{1}\bar{1}]_m$	[43]
(AA 3003 Alloy)	$(\bar{5}\bar{2}\bar{7})_{\alpha} // (011)_m$	[44]
$\alpha - Al(Mn, Fe)Si$	$[\bar{1}\bar{1}\bar{1}]_{\alpha} // [\bar{1}\bar{1}\bar{1}]_m$	[45]
(3xxx Alloy)	$(\bar{5}\bar{2}\bar{7})_{\alpha} // (011)_m$	
$\alpha - Al(Mn, Fe)Si$	$[\bar{1}\bar{1}\bar{1}]_{\alpha} // [\bar{1}\bar{1}\bar{1}]_m$	
(DC-cast AA 3003 Alloy)	$(527)_{\alpha} // (011)_m$	
	$[\bar{2}\bar{5}\bar{0}]_{\alpha} // [\bar{1}\bar{1}\bar{1}]_m$	
	$(527)_{\alpha} // (011)_m$	

Table 3 Microdiffraction data for symmetry analysis

Zone axis	ZOLZ (Zero Order Laue Zone)		WP (Whole pattern)	
	Net symmetry	Ideal symmetry	Net symmetry	Ideal symmetry
$\langle 001 \rangle$	$(4mm)$	$2mm$	$4mm$	$2mm$
$\langle 111 \rangle$	$(6mm)$	$\bar{6}$	$3m$	$\bar{3}$

Table 4 Determination of the intersection point group H whose elements are common to the GBCP and the aluminium matrix, the number of variants n which is the ratio between the orders of the point groups of the matrix and the point group H

Orientation relationships	Superimposed symmetries	Shared symmetries	$H_h = G_{m=48}^{m\bar{3}m} \cap G_{24}^{m\bar{3}}$	$n = \frac{m}{h}$
$(\bar{2}00)_{GBCP} // (\bar{2}20)_M$	$2/m$ on $2/m$	$2/m$	$m\bar{3}m \cap m\bar{3} = 2/m$	$48/4 = 12$
$(020)_{GBCP} // (\bar{1}\bar{1}\bar{1})_M$	$2/m$ on $\bar{3}$	1		
$[001]_{GBCP} // [112]_M$	$2/m$ on 1	1		

- The presentation of pinacoid writing was incorrect on; Page 7 of 10, second column line 2 from the bottom, page 8 of 10 first column line 7 from the up, and page 9 of 10 in the conclusion: The correct version is: $\{(010) \text{ or } (h0l)\}$.

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