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## Corrigendum on “Microstructural and elastic properties of stable aluminium-rich TiAl and TiAl<sub>2</sub> formed phase intermetallics” [Mater. Lett. 287 (2021) 129295]

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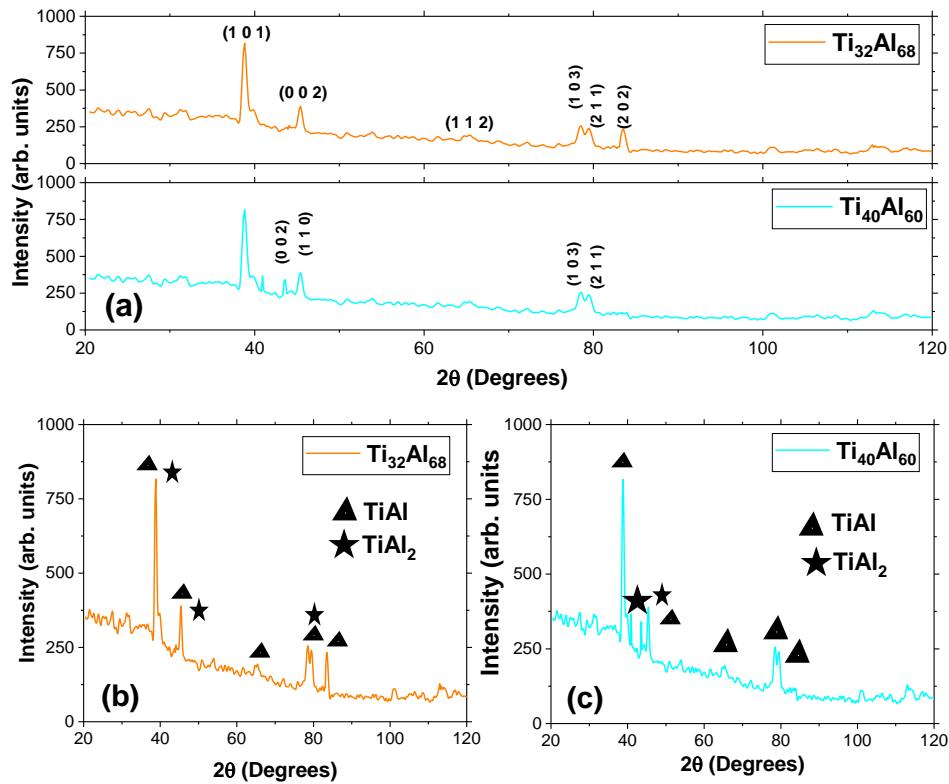
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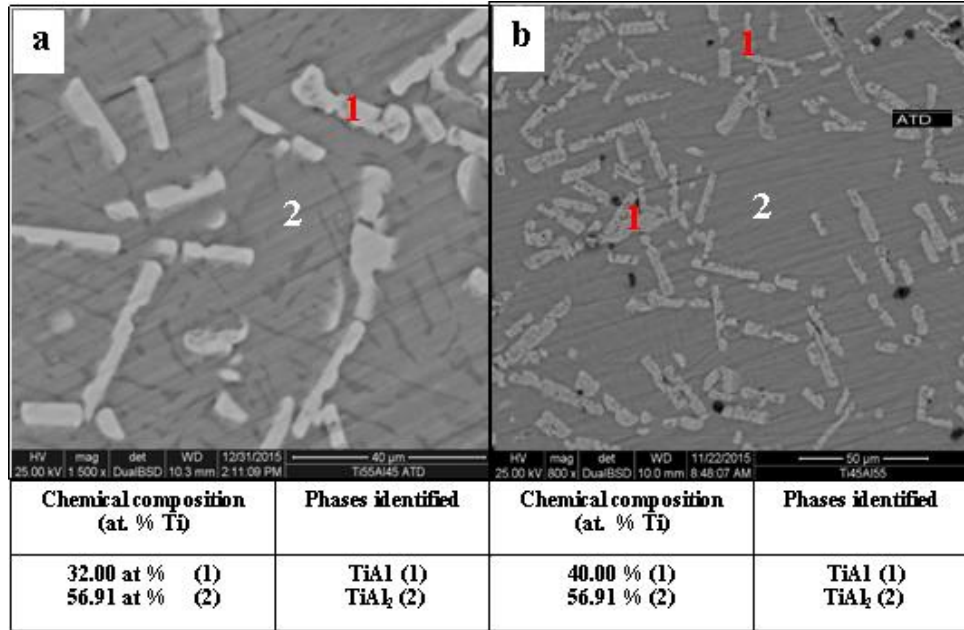
The authors regret that incorrect or incomplete data were reported in the mentioned paper, which requires the publication of the present Corrigendum. The authors would like to apologize for any inconvenience caused.

In the XRD results (figure 1), we did not acknowledge the source of the data. We have included that in the caption of figure 1



**Fig. 1:** (a) X-ray diffractograms for the indexed peaks for calculating the lattice parameters of the two binary alloys; and (b and c) the identified phases (TiAl and TiAl<sub>2</sub>). XRD data from Chanbi et al., 2019

In figure 2, we did not acknowledge the source of the figure. We have made the correction by acknowledging the source as shown in the figure caption, both (a) and (b). Also, the atomic composition of Ti in the  $\text{TiAl}_2$  phase is 52.91%, and not 56.91% as indicated in the figure (figure 2).



**Fig. 2:** SEM micrographs of binary alloy phases (a)  $\text{Ti}_{40}\text{Al}_{60}$  (Chanbi et al., 2019, thesis) and  $\text{TiAl}_2$  (b)  $\text{Ti}_{32}\text{Al}_{68}$  and  $\text{TiAl}_2$  (Chanbi et al., 2019, article – ref. /2/ in the paper) (Chanbi et al., 2019, thesis)

In figure 4c in reference 2 of the paper (*Materials* 12 (2019) 1-16), the authors used percentage weight (for overall composition), while in figure 2b in our paper, we used atomic percentage.

In table 1, we did not specify that the calculated lattice parameters were for the specific phases, and not for the overall compositions of the alloys. We have included this, both in the caption of table 1 and also in the text of table 1.

**Table 1:** Equilibrium lattice parameters (in Å) and unit cell volumes (in Å<sup>3</sup>) from the XRD analysis and the computational study (for the TiAl phase), as well as the computed densities (in kg/m<sup>3</sup>). Also presented are the experimental and computational values of the elastic moduli (in GPa), the Poisson's ratio ( $\mu$ ) and the Pugh's ratio ( $n$ ) (for both phases), together with relevant values that are available in the literature.

Alloy	Parameter	Computation	Experiment
<b>TiAl (Ti<sub>32</sub>Al<sub>68</sub>)</b>	a (Å)	2.831	2.822
	c (Å)	3.979	4.056
	V (Å <sup>3</sup> )	318.9	323.0
	$\rho$ (kg/m <sup>3</sup> )	3500.2	3609 <sup>(2)</sup>
<b>TiAl (Ti<sub>40</sub>Al<sub>60</sub>)</b>	a (Å)	2.792	2.828
	c (Å)	4.028	4.064
	V (Å <sup>3</sup> )	314.0	325.0
	$\rho$ (kg/m <sup>3</sup> )	3773.2	3880 <sup>(2)</sup>

	Computation					Experiment	% deviation	Others
<b>Ti<sub>32</sub>Al<sub>68</sub></b>								
	<b>E</b>	<b>B</b>	<b>G</b>	<b>M</b>	<b>N</b>	<b>E</b>	<b>E</b>	<b>E</b>
<b>TiAl</b>	174.5	103.1	72.9	0.214	1.414	162.20 <sup>(2)</sup>	0.3713	161.99 <sup>(7)</sup>
<b>TiAl<sub>2</sub></b>	159.0	118.8	62.6	0.276	1.898			
<b>Effective</b>	161.6	116.1	64.4	0.266	1.803			
<b>Ti<sub>40</sub>Al<sub>60</sub></b>								

<b>TiAl</b>	191.2	116.4	78.0	0.226	1.492	166.45 <sup>(2)</sup>	1.1854	160-176 <sup>(9)</sup>
<b>TiAl<sub>2</sub></b>	159.0	118.8	62.6	0.276	1.898			
<b>Effective</b>	164.5	118.4	65.2	0.267	1.816			

## References

Chanbi, D. (2019). *Titanium-based intermetallic alloys* (unpublished PhD thesis). University of Science and Technology, Haouari-Boumediene, Algeria.