

# A high throughput combinatorial study of the effect of M site alloying on the solid solution behavior of $M_2AlC$ MAX phases

Anjana Talapatra<sup>1,\*</sup>, T. Duong<sup>1</sup>, W. Son<sup>1</sup>, H. Gao<sup>1</sup>, M. Radovic<sup>1,2</sup>, and R. Arróyave<sup>1,2</sup>

<sup>1</sup> *Department of Materials Science & Engineering, TAMU, USA, 77843 and*

<sup>2</sup> *Department of Mechanical Engineering, TAMU, USA, 77843*

(Dated: February 7, 2017)

In this Erratum, we correct some typographical errors that were overlooking during editing. In the text, the following corrections are to be applied:

FIG.9 Caption: Calculated electronic density of states (DOS) for (a)  $\text{Mn}_2\text{AlC}$  and (b)  $(\text{Ti}_{0.5}\text{V}_{0.5})_2\text{AlC}$ . Red, blue and green colors indicate the contributions of the d, s, and p orbitals, respectively. The top panels indicate the total and orbital projected density of states, while the middle and lower panels indicate the site-projected density of states. (a)  $\text{Mn}_2\text{AlC}$ . (b)  $(\text{Ti}_{0.5}\text{Mn}_{0.5})_2\text{AlC}$ . should read:

Calculated electronic density of states (DOS) for (a)  $\text{Mn}_2\text{AlC}$  and (b)  $(\text{Ti}_{0.5}\text{Mn}_{0.5})_2\text{AlC}$ . Red, blue and green colors indicate the contributions of the d, s, and p orbitals, respectively. The top panels indicate the total and orbital projected density of states, while the middle and lower panels indicate the site-projected density of states. (a)  $\text{Mn}_2\text{AlC}$ . (b)  $(\text{Ti}_{0.5}\text{Mn}_{0.5})_2\text{AlC}$ .

FIG.12 Caption: Calculated electronic density of states (DOS) for (a)  $\text{Zn}_2\text{AlC}$  and (b)  $(\text{Ti}_{0.5}\text{V}_{0.5})_2\text{AlC}$ . Red, blue, and green colors indicate the contributions of the d, s, and p orbitals, respectively. The top panels indicate the total and orbital projected density of states, while the middle and lower panels indicate the site-projected density of states. (a)  $\text{Zn}_2\text{AlC}$ . (b)  $(\text{Ti}_{0.5}\text{Zn}_{0.5})_2\text{AlC}$ . should read:

Calculated electronic density of states (DOS) for (a)  $\text{Zn}_2\text{AlC}$  and (b)  $(\text{Ti}_{1/3}\text{Zn}_{2/3})_2\text{AlC}$ . Red, blue, and green colors indicate the contributions of the d, s, and p orbitals, respectively. The top panels indicate the total and orbital projected density of states, while the middle and lower panels indicate the site-projected density of states. (a)  $\text{Zn}_2\text{AlC}$ . (b)  $(\text{Ti}_{1/3}\text{Zn}_{2/3})_2\text{AlC}$ .

In Section IV.A.3, Page 104106-7, the second sentence 'The system is seen to favor ordering at the  $(\text{Ti}_{1/3}\text{V}_{2/3})_2\text{AlC}$  composition.' should read: The system is seen to favor ordering at the  $(\text{Ti}_{1/3}\text{Zn}_{2/3})_2\text{AlC}$  composition.

These errors are only typographical in nature, and in the context of the results, can be easily spotted. The results presented and conclusions drawn are unaffected by the typographical errors.

---

\* anjanatalapatra@tamu.edu