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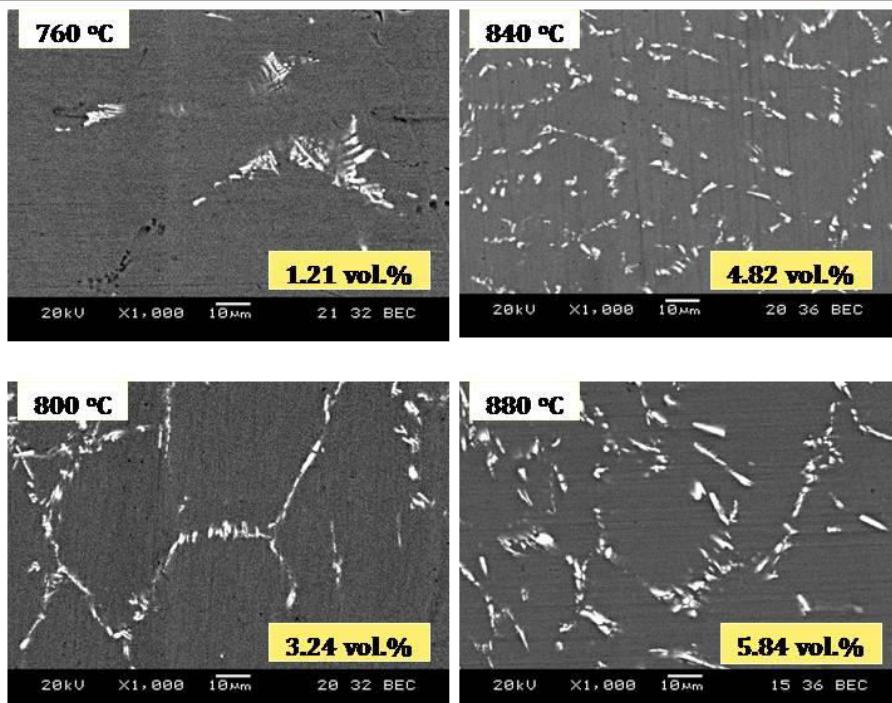


**Highlights of his / her research ( not more than 100 words) .....**

- Tribological property of Al matrix Composite
- Techniques and structural characterization of materials

Representative best pictures/ plot/graph with proper heading : 2 - 4 nos.

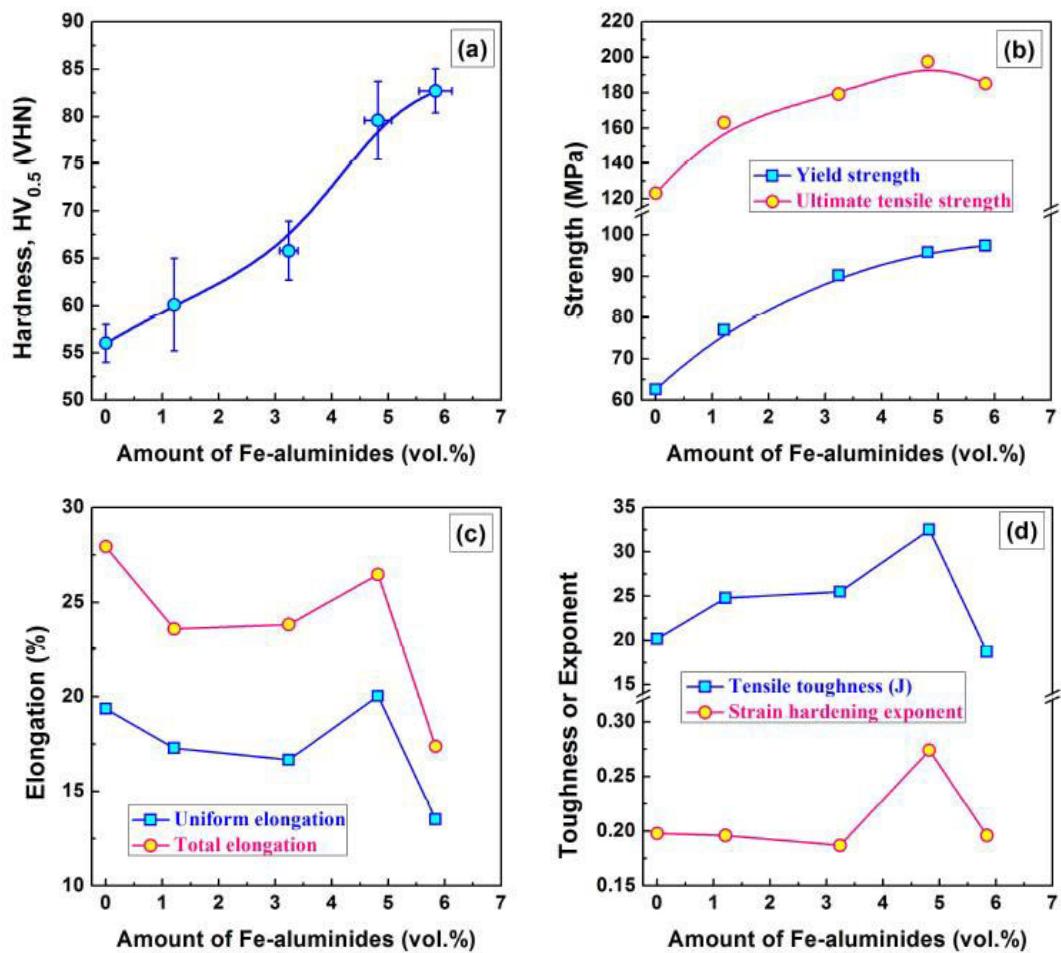
### **Microstructure : Effect of Al-melt Temperature**



**Processing ( $T_{Al}=xx$  °C and  $t_s=7$  min)**

**Un-etched specimens**





**Fig. 4.** Variations of measured (a) hardness, (b) yield and tensile strength, (c) uniform and total elongation, and (d) tensile toughness and strain hardening exponent as functions of amount of Fe-aluminides.

#### Publications:

- S.K. Pradhan, S. Chatterjee, A. Basu Mallick and D. Das, "A simple stir casting technique for the preparation of in-situ Fe aluminides reinforced Al matrix composites" ICEMS-2016, Jaipur National University, Jaipur, Rajasthan, March 17-19, 2016.
- S.K. Pradhan, A. Basu Mallick and D. Das, "Tribological properties of in-situ FeAl<sub>3</sub>/Al-2Mg composite prepared by reactive stir casting method" Seminar on Microstructures of Materials and Metallum 2014, March 12-14, IIEST, Shibpur.
- S.K. Pradhan, A. Basu Mallick and D. Das, "Development of High Performance Al<sub>3</sub>Fe/Al-2Mg In-Situ Composite by Reactive Stir Casting Process" Research Scholars' Day, January 29-30, 2014, IIEST, Shibpur.
- S.K. Pradhan, S. Chatterjee, A. Basu Mallick and D. Das, "A simple stir casting technique for preparation of in-situ Al<sub>3</sub>Fe/Al-2Mg composite" 66rd Annual Technical Meeting, Indian Institute of Metals, November, 2012, Jamshedpur.