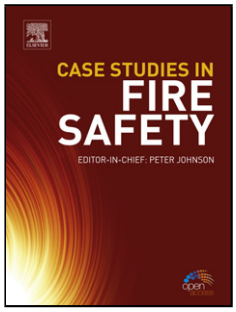


Title: Nano-Ti_5Si_3 leading to enhancement of oxidation resistance

Authors: Y. Jiao, L.J. Huang, S.L. Wei, L. Geng, M.F. Qian, S. Yue

PII: S0010-938X(18)30400-1
DOI: https://doi.org/10.1016/j.corsci.2018.05.043
Reference: CS 7555

To appear in:

Received date: 1-3-2018
Revised date: 28-5-2018
Accepted date: 31-5-2018

Please cite this article as: Jiao Y, Huang LJ, Wei SL, Geng L, Qian MF, Yue S, Nano-Ti_5Si_3 leading to enhancement of oxidation resistance, *Corrosion Science* (2018), https://doi.org/10.1016/j.corsci.2018.05.043

Nano-Ti_5Si_3 leading to enhancement of oxidation resistance

Y. Jiao[2], L.J. Huang[1,2,*], S.L. Wei[2], L. Geng[1,2], M.F. Qian[2], S. Yue[3]

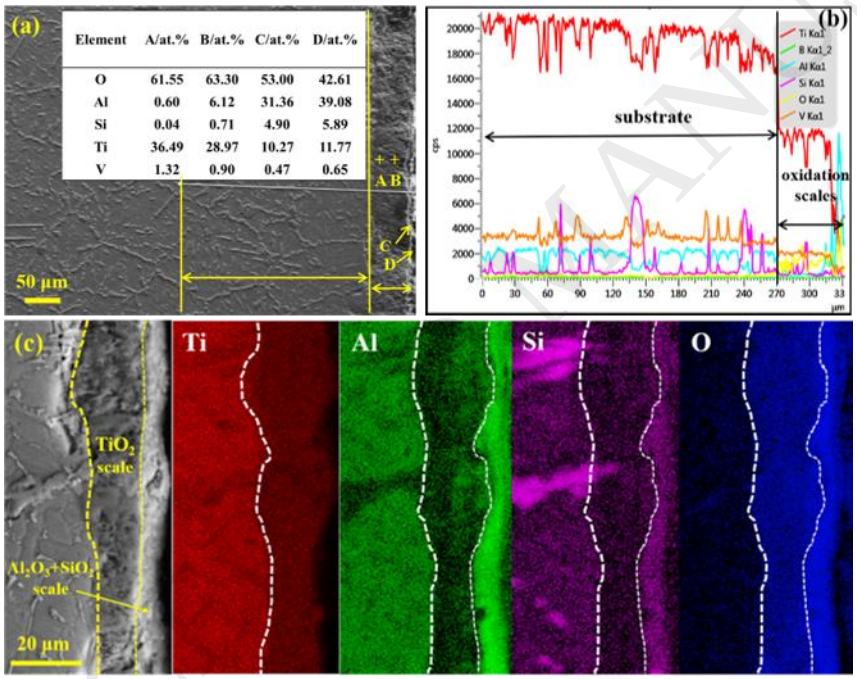
[1] State Key Laboratory of Advanced Welding and Joining, Harbin Institute of Technology, Harbin, PR China

[2] School of Materials Science and Engineering, Harbin Institute of Technology, P.O. Box 433, Harbin 150001, PR China

[3] Department of Mining and Materials Engineering, McGill University, Montreal, Quebec, Canada H3A 2B2

*Corresponding author: huanglujun@hit.edu.cn

Graphical abstract



Highlights

- Nano-Ti_5Si_3 led to remarkable enhancement of oxidation resistance of composites.
- The oxidation rate of composites decreased with increasing Ti_5Si_3 fractions.
- Nano-Ti_5Si_3 was beneficial to forming a scale of mixed Al_2O_3 and SiO_2.