

Top 25 Hottest Articles

Materials Science > Scripta Materialia

July - September 2014



1. **Hall-Petch relation and boundary strengthening**
Scripta Materialia, Volume 51, Issue 8, October 2004, Pages 801-806
Hansen, N.
2. **Effect of Er additions on the precipitation strengthening of Al-Hf alloys**
Scripta Materialia, Volume 87, September 2014, Pages 5-8
Wu, H.; Wen, S.P.; Gao, K.Y.; Huang, H.; Wang, W.; Nie, Z.R.
3. **Deformation twinning in a Mg-Al-Gd ternary alloy containing precipitates with a long-period stacking-ordered (LPSO) structure**
Scripta Materialia, Volume 89, October 2014, Pages 25-28
Kishida, K.; Inoue, A.; Yokobayashi, H.; Inui, H.
4. **Microstructure evolution and enhancement of fracture toughness of NiAl-Cr(Mo)-(Hf,Dy) alloy with a small addition of Fe during heat treatment**
Scripta Materialia, Volume 89, October 2014, Pages 1-4
Wang, L.; Shen, J.; Shang, Z.; Fu, H.
5. **Intrinsic ductility of Mg-based binary alloys: A first-principles study**
Scripta Materialia, Volume 89, October 2014, Pages 13-16
Zhang, J.; Dou, Y.; Dong, H.
6. **Micromagnetic simulations on the grain size dependence of coercivity in anisotropic Nd-Fe-B sintered magnets**
Scripta Materialia, Volume 89, October 2014, Pages 29-32
Sepehri-Amin, H.; Ohkubo, T.; Gruber, M.; Schrefl, T.; Hono, K.
7. **Grain growth in electroplated (111)-oriented nanotwinned Cu**
Scripta Materialia, Volume 89, October 2014, Pages 5-8
Huang, Y.S.; Liu, C.M.; Chiu, W.L.; Chen, C.
8. **Residual stress via the contour method in compact tension specimens produced via selective laser melting**
Scripta Materialia, Volume 87, September 2014, Pages 29-32
Vrancken, B.; Cain, V.; Knutsen, R.; Van Humbeeck, J.
9. **Process-controlled suppression of natural aging in an Al-Mg-Si alloy**
Scripta Materialia, Volume 89, October 2014, Pages 53-56
Pogatscher, S.; Kozeschnik, E.; Antrekowitsch, H.; Werinos, M.; Gerstl, S.S.A.; Löffler, J.F.; Uggowitzer, P.J.
10. **A novel design to enhance the amount of retained austenite and mechanical properties in low-alloyed steel**
Scripta Materialia, Volume 88, October 2014, Pages 21-24
Ding, R.; Tang, D.; Zhao, A.
11. **Estimation of the Hall-Petch strengthening coefficient of steels through nanoindentation**
Scripta Materialia, Volume 87, September 2014, Pages 49-52
Seok, M.Y.; Choi, I.C.; Moon, J.; Kim, S.; Ramamurty, U.; Jang, J.i.
12. **Metallic glasses as structural materials**
Scripta Materialia, Volume 54, Issue 3, February 2006, Pages 321-326
Ashby, M.F.; Greer, A.L.
13. **Reinforcement with graphene nanosheets in aluminum matrix composites**
Scripta Materialia, Volume 66, Issue 8, April 2012, Pages 594-597
Wang, J.; Li, Z.; Fan, G.; Pan, H.; Chen, Z.; Zhang, D.
14. **High-strength steels hardened mainly by nanoscale NiAl precipitates**
Scripta Materialia, Volume 87, September 2014, Pages 45-48
Jiao, Z.B.; Luan, J.H.; Zhang, Z.W.; Miller, M.K.; Liu, C.T.
15. **Current issues in magnesium sheet alloys: Where do we go from here?**
Scripta Materialia, Volume 84-85, August 2014, Pages 1-6
Suh, B.C.; Shim, M.S.; Shin, K.S.; Kim, N.J.
16. **Influence of grain boundary energy on the nucleation of complexion transitions**
Scripta Materialia, Volume 88, October 2014, Pages 1-4
Bojarski, S.A.; Harmer, M.P.; Rohrer, G.S.
17. **Hierarchical nanoporous nickel alloy as three-dimensional electrodes for high-efficiency energy storage**
Scripta Materialia, Volume 89, October 2014, Pages 69-72
Qiu, H.J.; Ito, Y.; Chen, M.W.

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- 18. The role of grain boundary plane orientation in the β phase precipitation of an Al-Mg alloy**
Scripta Materialia, Volume 89, October 2014, Pages 49-52
Zhao, Y.; Polyakov, M.N.; Mecklenburg, M.; Kassner, M.E.; Hodge, A.M.
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- 19. Effects of Nb and C additions on the microstructure and tensile properties of lightweight ferritic Fe-8Al-5Mn alloy**
Scripta Materialia, Volume 89, October 2014, Pages 37-40
Zargarani, A.; Kim, H.S.; Kwak, J.H.; Kim, N.J.
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- 20. Cluster strengthening in aluminium alloys**
Scripta Materialia, Volume 84-85, August 2014, Pages 43-46
Zhao, Q.
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- 21. Characterisation of fine-scale microstructures by electron backscatter diffraction (EBSD)**
Scripta Materialia, Volume 51, Issue 8, October 2004, Pages 771-776
Humphreys, F.J.
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- 22. Effect of microalloyed Zr on the extruded microstructure of Mg-6.2Zn-based alloys**
Scripta Materialia, Volume 90-91, November 2014, Pages 37-40
Bhattacharjee, T.; Nakata, T.; Sasaki, T.T.; Kamado, S.; Hono, K.
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- 23. Strength and ductility of ultrafine grained aluminum and iron produced by ARB and annealing**
Scripta Materialia, Volume 47, Issue 12, December 2002, Pages 893-899
Tsuji, N.; Ito, Y.; Saito, Y.; Minamino, Y.
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- 24. In situ bending of layered compounds: The role of anisotropy in Ti^{100}Al microcantilevers**
Scripta Materialia, Volume 89, October 2014, Pages 21-24
Yang, H.; Zhang, P.; Pei, Y.; Zhang, Z.; De Hosson, J.Th.M.
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- 25. Effect of the crystallographic orientation and twinning on the corrosion resistance of an as-extruded Mg-3Al-1Zn (wt.%) bar**
Scripta Materialia, Volume 88, October 2014, Pages 5-8
Wang, B.J.; Xu, D.K.; Dong, J.H.; Ke, W.
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