

No.	Description
25	Alhamidi, A. and Horita, Z. (2015) Grain refinement and high strain rate superplasticity in aluminium 2024 alloy processed by high-pressure torsion, <i>Materials Science and Engineering A</i> , 622, 139-145. DOI: 10.1016/j.msea.2014.11.009
24	Hongo, T., Edalati, K., Iwaoka, H., Arita, M., Matsuda, J., Akiba, E. and Horita, Z. (2014) High-pressure torsion of palladium: Hydrogen-induced softening and plasticity in ultrafine grains and hydrogen-induced hardening and embrittlement in coarse grains, <i>Materials Science and Engineering A</i> , 618, 1-8. DOI: 10.1016/j.msea.2014.08.074
23	Lee, S., Edalati, K., Iwaoka, H., Horita, Z., Ohtsuki, T., Ohkochi, T., Kotsugi, M., Kojima, T., Mizuguchi, M. and Takanashi, K. (2014) Formation of FeNi with L10-ordered structure using high-pressure torsion, <i>Philosophical Magazine Letters</i> , 94 (10), 639-646.
22	Matsuda, J. and Yoshida, K. (2014) In situ TEM Observation on Hydrogenation of Hydrogen Storage Materials, <i>Kenbikyo (Microscope)</i> , the membership journal of the Japanese Society of Microscopy, 49 (2).
21	Matsuda, J., Yoshida, K., Sasaki, Y., Uchiyama, N. and Akiba, E. (2014) In situ observation on hydrogenation of Mg-Ni films using environmental transmission electron microscope with aberration correction, <i>Applied Physics Letters</i> , 105, 083903. DOI: 10.1063/1.4894101
20	Edalati, K., Daio, T., Lee, S., Horita, Z., Nishizaki, T., Akune, T. Nojima, T. and Sasaki, T. (2014) High strength and superconductivity in nanostructured niobium–titanium alloy by high-pressure torsion and annealing: Significance of elemental decomposition and supersaturation, <i>Acta Materialia</i> , 80 (), 149-158. DOI: 10.1016/j.actamat.2014.07.065
19	Matsuda, J., Uchiyama, N., Kanai, T., Harada, K. and Akiba, E. (2014) Effect of Mg/Ni ratio on microstructure of Mg-Ni films deposited by magnetron sputtering, <i>Journal of Alloys and Compounds</i> , 617, 47-51. DOI: 10.1016/j.jallcom.2014.07.201
18	Edalati, K., Matsuda, J., Yanagida, A., Akiba, E. and Horita, Z. (2014) Activation of TiFe for hydrogen storage by plastic deformation using groove rolling and high-pressure torsion: Similarities and differences, <i>International Journal of Hydrogen Energy</i> , 39 (28), 15589-15594. DOI: 10.1016/j.ijhydene.2014.07.124
17	Li, H.W., Yan, Y., Akiba, E. and Orimo, S.-i. (2014) Improved Dehydrogenation and Rehydrogenation Properties of LiBH ₄ by Nanosized Ni Addition, <i>Materials Transactions</i> , 55 (8), 1134-1137.
16	Edalati, K., Cubero-Sesin, J.M., Alhamidi, A., Mohamed, I.F. and Horita, Z. (2014) Influence of severe plastic deformation at cryogenic temperature on grain refinement and softening of pure metals: Investigation using high-pressure torsion, <i>Materials Science and Engineering A</i> , 613, 103-110. DOI: 10.1016/j.msea.2014.06.084
15	Alhamidi, A., Horita, Z. (2014) Application of high-pressure torsion to Al-6 %Cu-0.4 %Zr alloy for ultrafine-grain refinement and superplasticity, <i>Journal of Materials Science</i> , 49 (19), 6689-6695. DOI: 10.1007/s10853-014-8362-5

14	Alhamidi, A., Edalati, K., Horita, Z., Hirosawa, S., Matsuda, K., Terada, D. (2014) Softening by severe plastic deformation and hardening by annealing of aluminum-zinc alloy: Significance of elemental and spinodal decompositions, <i>Materials Science and Engineering A</i> , 610, 17-27. DOI: 10.1016/j.msea.2014.05.026
13	Ikoma, Y., Hayano, K., Edalati, K., Saito, K., Guo, Q., Horita, Z., Aoki, T., Smith, D.J. (2014) Fabrication of nanograined silicon by high-pressure torsion, <i>Journal of Materials Science</i> , 49, 6565-6569. DOI: 10.1007/s10853-014-8250-z
12	Minoda, A., Oshima, S., Iki, H. and Akiba, E. (2014) Hydrogen storage capacity of lithium-doped KOH activated carbons, <i>Journal of Alloys and Compounds</i> , 606, 112-116. DOI: 10.1016/j.jallcom.2014.04.012
11	Cubero-Sesin, J.M., In, H., Arita, M., Iwaoka, H., Horita, Z. (2014) High-pressure torsion for fabrication of high-strength and high-electrical conductivity Al micro-wires, <i>Journal of Materials Science</i> , 49 (19), 6550-6557. DOI: 10.1007/s10853-014-8240-1
10	Deschamps, A., De Geuser, F., Horita, Lee, S. and Renou, G. (2014) Precipitation kinetics in a severely plastically deformed 7075 aluminium alloy, <i>Acta Materialia</i> , 66, 105-117. DOI: 10.1016/j.actamat.2013.11.071
9	Shao, H., Ma, W., Kohno, M., Takata, Y., Xin, G., Fujikawa, S., Fujino, S., Bishop, S., Li, X. (2014) Hydrogen storage and thermal conductivity properties of Mg-based materials with different structures, <i>International Journal of Hydrogen Energy</i> , 39 (18), 9893-9898. DOI: 10.1016/j.ijhydene.2014.02.063
8	Sakaki, K., Terashita, N., Kim, H., Majzoub, E.H., Machida, A., Watanuki, T., Tsunokake, S., Nakamura, Y., Akiba, E. (2014) Degradation mechanism against hydrogenation cycles in $Mg_{2-x}Pr_xNi_4$ ($x = 0.6$ and 1.0), <i>Journal of Physical Chemistry C</i> , 118 (13), 6697-6705. DOI: 10.1021/jp500855d
7	Akama, D., Lee, S., Horita, Z., Matsuda, K., Hirosawa, S. (2014) Aging behavior of ultrafine-grained Al-Mg-Si-X (X= Cu, Ag, Pt, Pd) alloys produced by high-pressure torsion, <i>Materials Transactions</i> , 55 (4), 640-645. DOI: 10.2320/matertrans.L-M2014802
6	Lee, S., Matsunaga, H., Sauvage, X. and Horita, Z. (2014) Strengthening of Cu-Ni-Si alloy using high-pressure torsion and aging, <i>Materials Characterization</i> , 90, 62-70. DOI: 10.1016/j.matchar.2014.01.006
5	Shao, H., Chen, C., Liu, T., Li, X. (2014) Phase, microstructure and hydrogen storage properties of Mg-Ni materials synthesized from metal nanoparticles, <i>Nanotechnology</i> , 25 (13), 135704. DOI: 10.1088/0957-4484/25/13/135704
4	Edalati, K., Akama, D., Nishio, A., Lee, S., Yonenaga, Y., Cubero-Sesin, J.M. and Horita, Z. (2014) Influence of dislocation-solute atom interactions and stacking fault energy on grain size of single-phase alloys after severe plastic deformation using high-pressure torsion, <i>Acta Materialia</i> , 69, 68-77. DOI: 10.1016/j.actamat.2014.01.036
3	Edalati, K., Daio, T., Arita, M., Lee, S., Horita, Z., Togo, A. and Tanaka, I. (2014) High-pressure

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	torsion of titanium at cryogenic and room temperatures: Grain size effect on allotropic phase transformations, <i>Acta Materialia</i> , 68, 207-213. DOI: 10.1016/j.actamat.2014.01.037
2	He, L., Li, H.-W., Hwang, S.-J., Akiba, E. (2014) Facile solvent-free synthesis of anhydrous alkali metal dodecaborate $M_2B_{12}H_{12}$ (M = Li, Na, K), <i>Journal of Physical Chemistry C</i> , 118 (12), 6084-6089. DOI: 10.1021/jp500253k
1	Alhamidi, A., Edalati, K. and Horita, Z. (2014) Effect of temperature on solid-state formation of bulk nanograined intermetallics during high-pressure torsion, <i>Philosophical Magazine</i> , 94 (9), 867-887. DOI: 10.1080/14786435.2013.868945