

Name; Katsuyoshi KONDOH
(Nationality; Japanese, Birth; Nov 16th, 1963)



Biography

(a) Education Background

- March 1986 Bachelor of Engineering, Osaka University, Japan
- March 1988 Master of Engineering, Osaka University, Japan
- May 1998 Doctor of Engineering, Osaka University, Japan

(b) Work Experience

- April 1988 Sumitomo Electric Industries, Co. Ltd.
- April 2001 Associate Professor, The University of Tokyo
- March 2006 Professor, Joining & Welding Res. Inst., Osaka University
- Present Vice Executive Director in charge of international globalization, Osaka U

Major research themes: Materials Science and Engineering Processing

1. Mechanics of metal matrix composites reinforced with nano carbon materials.
2. Atomic-scale materials design of high strength & toughness PM titanium materials.
3. Phase transformation controlled NiTi-X shape memory alloys.
4. Surface potential control for corrosion improvement of metals and alloys.
5. Direct bonding processing of metals to CFRP for multi-materials design.
6. Network-structured carbon nanotube films for high-tribology performance.
7. Recycle process of agricultural wastes in producing industrial resources.

Recent publication list (reviewed articles with impact factor)

1. X. Zhang, S. Li, B. Pan, D. Pan, S. Zhou, S. Yang, L. Jia, K. Kondoh: A novel strengthening effect of in-situ nano Al₂O₃w on CNTs reinforced aluminum matrix nanocomposites and the matched strengthening mechanisms, Journal of Alloys and Compounds, 764 (2018) 279-288
2. J. Shen, B. Chen, J. Umeda, K. Kondoh: Microstructure and mechanical properties of CP-Ti fabricated via powder metallurgy with non-uniformly dispersed impurity solutes, Materials Science and Engineering A, 716 (2018) 1-10.
3. X. Zhang, S. Li, D. Pan, B. Pan, K. Kondoh: Microstructure and synergistic-strengthening efficiency of CNTs-SiC_p dual-nano reinforcements in aluminum matrix composites, Composites Part A, 105 (2018) 87-96.
4. K. Kondoh, J. Umeda: C-O bond enhancing direct bonding strength between plastic and pure titanium, Materials Letters, 211 (2018) 331-334.
5. B. Chen, J. Shen, X. Ye, L. Jia, S. Li, J. Umeda, M. Takahashi, K. Kondoh: Length effect of carbon nanotubes on the strengthening mechanisms in metal matrix composites, Acta Materialia, 140 (2017) 317-325.
6. J. Umeda, T. Mimoto, H. Imai, K. Kondoh: Powder Forming Process from Machined Titanium Chips via Heat Treatment in Hydrogen Atmosphere, Materials Transactions, 58 (2017) 1702-1707.

7. B. Chen, S.K. Moon, X. Yao, G. Bi, J. Shen, J. Umeda, K. Kondoh: Strength and Strain Hardening of a Selective Laser Melted AlSi10Mg Alloy, *Scripta Materialia*, 141, (2017) 45-49.
8. X.X. Ye, B. Chen, J.H. Shen, J. Umeda, K. Kondoh: Microstructure and strengthening mechanism of ultrastrong and ductile Ti-xSn alloy processed by powder metallurgy, *Journal of Alloys and Compounds*, 709, (2017) 381-393.
9. A. Bahador, E. Hamzaha, K. Kondoh, T. A. A. Bakar, F. Yusof, H. Imai, S. N. Saud, M. K. Ibrahima: Effect of deformation on the microstructure, transformation temperature and superelasticity of Ti-23 at% Nb shape-memory alloys, *Materials and Design*, 118, (2017) 152-162.
10. Y. F. Yang, K. Kondoh, M. Qian: Enhanced Homogenization of Vanadium in Spark Plasma Sintering of Ti-10V-2Fe-3Al Alloy from Titanium and V-Fe-Al Master Alloy Powder Blends, *JOM*, 69, 4, (2017), 663-668. DOI: 10.1007/s11837-017-2271-4.
11. B. Chen, H. Imai, J. Umeda, M. Takahashi, K. Kondoh: Effect of Spark-Plasma-Sintering Conditions on Tensile Properties of Aluminum Matrix Composites Reinforced with Multiwalled Carbon Nanotubes (MWCNTs), *JOM* (2017). DOI: 10.1007/s11837-017-2263-4.
12. J. Shen, X. Chen, V. Hammond, L.J. Kecskes, S.N. Mathaudhu, K. Kondoh, Q. Wei: The effect of rolling on the microstructure and compression behavior of AA5083 subjected to large-scale ECAE, *Journal of Alloys and Compounds*, 695 (2017) 3589-3597. DOI: 10.1016/j.jallcom.2016.11.406.
13. B. Chen, J. Shen, X. Ye, H. Imai, J. Umeda, M. Takahashi, K. Kondoh: Solid-state interfacial reaction and load transfer efficiency in carbon nanotubes (CNTs)-reinforced aluminum matrix composites, *Carbon*, 114 (2017) 198-208. DOI: 10.1016/j.carbon.2016.12.013.
14. X.X. Ye, J.H. Shen, B. Chen, G.Q. Han, J. Umeda, M. Takahashi, K. Kondoh: Dynamic recrystallization behavior and strengthening-toughening effects in a near- α Ti-xSi alloy processed by hot extrusion, *Materials Science & Engineering A*, 684 (2017) 165-177. DOI: 10.1016/j.msea.2016.12.054.
15. J. Shen, B. Chen, X. Ye, H. Imai, J. Umeda, K. Kondoh: The formation of bimodal multilayered grain structure and its effect on the mechanical properties of powder metallurgy pure titanium, *Materials and Design*, 116 (2017) 99-108. DOI:10.1016/j.matdes.2016.12.004.
16. X.X. Ye, H. Imai, J.H. Shen, B. Chen, G.Q. Han, J. Umeda, K. Kondoh: Study of twinning behavior of powder metallurgy Ti-Si alloy by interrupted in-situ tensile tests, *Materials Science and Engineering A* 679 (2017) 543-553.
17. X.X. Ye, J.H. Shen, B. Chen, G.Q. Han, J. Umeda, M. Takahashi, K. Kondoh: Strengthening-toughening mechanism study of powder metallurgy Ti-Si alloy by interrupted in-situ tensile tests, *Journal of Alloys and Compounds* 694 (2017) 82-92.
18. J. Shen, H. Imai, B. Chen, X. Ye, J. Umeda, K. Kondoh: Highly Thermally Stable Microstructure in Mg Fabricated Via Powder Rolling, *JOM*, 68, 12 (2016) 1-6.

19. S. Li, H. Imai, J. Umeda, Y. Fu, K. Kondoh: Investigation of High-strength Lead-free Machinable Cu₄₀Zn Duplex Graphite Brasses by Powder Metallurgy, *Materials Science and Technology*, (2016), DOI: 10.1080/02670836.2016.1246098.
20. K.Y. Chen, K. Kondoh, J. Umeda, H.Y. Tsai: Effect of Reaction between Alloying Element and VGCFs on Mechanical and Electrical Properties of PM Copper Alloy Composites Dispersed with VGCFs, *Materials Transactions*, 57 (2016) 1784-1788.
21. B. Chen and K. Kondoh: Sintering Behaviors of Carbon Nanotubes—Aluminum Composite Powders, *Metals*, 6(9), 213 (2016) DOI: 10.3390/met6090213.
22. K. Kondoh, T. Oguri, J. Umeda, H. Imai : Anisotropy of texture-controlled powder metallurgy magnesium alloys via roll-compaction process, *Journal of Multidisciplinary Engineering Science Studies*, 2 (2016) 810-814.
23. X.X. Ye, H. Imai, J.H. Shen, B. Chen, J. Umeda, M. Takahashi, K. Kondoh: Strengthening-toughening mechanism study of powder metallurgy Ti-Si alloy by interrupted in-situ tensile tests, *Journal of Alloys and Compounds* 694 (2017) 82-92.
24. L. Jia, X. Wang, B. Chen, H. Imai, S. Li, Z. Lu, K. Kondoh: Microstructural evolution and competitive reaction behavior of Ti–B₄C system under solid-state sintering, *Journal of Alloys and Compounds*, 687 (2016) 1004-1011.
25. G. Han, J. Shen, X. Ye, B. Chen, H. Imai, K. Kondoh, W. Du, *Materials Letters*, 181, (2016) 300-304.
26. J. Umeda, N. Nakanishi, K. Kondoh, H. Imai, *Materials Chemistry and Physics*, 179, (2016) 5-9.
27. S. Li, K. Kondoh, H. Imai, B. Chen, L. Jia, J. Umeda, Y. Fu, *Materials and Design*, 95, (2016) 127-132.
28. B. Chen, K. Kondoh, H. Imai, J. Umeda, M. Takahashi, *Scripta Materialia*, 113, (2016) 158-162.
29. J. Shen, K. Kondoh, T. L. Jones, S. N. Mathaudhu, L. J. Kecskes, Q. We, *Materials Science & Engineering*, A649, (2016) 338-348.
30. J. Umeda, B. Fugetsu, E. Nishida, H. Miyaji, K. Kondoh, *Applied Surface Science*, 357, (2015) 721-727.
31. B. Chen, S. Li, H. Imai, L. Jia, J. Umeda, K. Kondoh, *J. Alloys and Compounds*, 651, (2015) 608-615.
32. J. Shen, W. Yin, K. Kondoh, T. Jones, L. J. Kecskes, S. N. Yarmolenko, Q. Wei, *Materials Science & Engineering A*, 626 (2015) 108-121.
33. K. Kondoh, B. Sun, S. Li, H. Imai, J. Umeda: Experimental and Theoretical Analysis of Nitrogen Solid-Solution Strengthening of PM Titanium, *International Journal of Powder Metallurgy*, 50, 3, (2014) 35-40.
34. B. Chen, L. Jia, S. Li, H. Imai, M. Takahashi, K. Kondoh: In Situ Synthesized Al₄C₃ Nanorods with Excellent Strengthening Effect in Aluminum Matrix Composites, *Advanced Engineering Materials*, 16, 8 (2014) 972-975.
35. K. Kondoh, H. Fukuda, J. Umeda, H. Imai, B. Fugetsu, *Carbon*, 72, (2014) 15-21.
36. X. P. Li, M. Yan, H. Imai, K. Kondoh, G.B. Schaffer, M. Qian, *Journal of Non-Crystalline Solids*, 375, (2013) 95-98.

37. X. Yang, E. Liu, C. Shi, C. He, J. Li, N. Zhao, K. Kondoh: Fabrication of carbon nanotube reinforced Al composites with well-balanced strength and ductility, *Journal of Alloys and Compounds*, 563, (2013) 216-220.
38. S. Li, B. Sun, H. Imai, T. Mimoto, K. Kondoh: Powder metallurgy titanium metal matrix composites reinforced with carbon nanotubes and graphite, *Composites A*, 48, (2013) 57–66.
39. K. Kondoh, T. Threrujirapapong J. Umeda, B. Fugetsu, *Composites Science and Technology*, 72, (2012) 1291-1297.
40. K. Kondoh, J. Fujita, J. Umeda, H. Imai, K. Enami, M. Ohara, T. Igarashi, *Materials Chemistry and Physics*, 129, (2011) 631-640.
41. K. Kondoh, A. Elsayed, H. Imai, J. Umeda, T. Jones, *Materials and Design*, 32, (2011) 1540-1546.

Total number of published paper; 286