



Mizutani Publications

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Books

1. U.Mizutani, "Physical Properties of Amorphous Alloys", (AGNE, Japan), edited by T.Masumoto and K.Fukamichi (1981) (in Japanese)
2. U.Mizutani, Y.Yamada and Y.Hoshino, "Preparation of Amorphous Alloys by Melt Quenching", (AGNE Technical Center, Japan, 1986) (in Japanese)
3. U.Mizutani and T.B.Massalski, "Electronic and Size Effects in the Stability of Noble Metal Based Alloys", edited by T.B.Massalski, W.B.Pearson, L.H.Bennett and Y.A.Chang (The Metallurgical Society of AIME) (1986) p.127-140
4. U.Mizutani, "Electronic Properties of Liquid, Amorphous and Quasicrystalline Alloys", Materials Science and Technology-A Comprehensive Treatments- edited by R.W.Cahn, P.Haasen and E.J.Kramer (VCH, 1993), vol.3B, Chapter 9, pp.97-157
5. U.Mizutani, "Electron Theory of Metals (I) and (II)" Uchida-Rokakuho, (1995 and 1996) (in Japanese)
6. U.Mizutani, "2.3 Electron Theory of Solids" in Metal Handbook, Six Edition (2000) (Maruzen, Japan) (in Japanese)
7. U.Mizutani, "Introduction to the Electron Theory of Metals", Cambridge University Press, (2001)
8. U.Mizutani, "Electron Transport Properties of Complex Metallic Alloys" in "Basics of Thermodynamics and Phase Transitions in Complex Intermetallics", (Book Series on Complex Metallic Alloys-Vol.1, edited by E.Belin-Ferré, World Scientific, Singapore, 2008), pp.319-365
9. U. Mizutani, R. Asahi, H. Sato, and T. Takeuchi, "AB INITIO TEST OF THE HUME-ROTHERY ELECTRON CONCENTRATION RULE FOR GAMMA-BRASSES", Chapter 15 in "Diffuse Scattering in the 21st Century: Emerging Insights into Materials Structure and Behavior", (edited by R.I.Barabash, G.E.Ice and P.E.A.Turchi, Momentum Press, New Jersey, 2009), pp.283-301
10. U.Mizutani, "Hume-Rothery Rules for Structurally Complex Alloy Phases", (2010, Taylor & Francis Group)

Articles (Journals and Proceedings in English)

1. U.Mizutani, S.Noguchi and K.Kondo, "Electronic specific heat of β -phase alloys based on copper and silver", Proc. of 12th Int.Conf. on Low Temperature Physics (Kyoto) (1970)
2. U.Mizutani, "Low temperature specific heat of pure zinc", Japan.J.Appl.Phys., **10** (1971) 367
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4. Y.Iwama, U.Mizutani and F.B.Humphrey, "Formation process of MnBi thin films", IEEE Trans. on Magnetism **8** (1972) 487

5. T.B.Massalski, U.Mizutani and S.Noguchi, "Low temperature specific heat of zinc alloyed with silver", Proc.Royal Soc.London **A343** (1975) 363
6. U.Mizutani and T.B.Massalski, "Experimental evidence for the Fermi surface overlaps effect in β -phase Ag-Zn alloys", Proc.Royal Soc.London **A343** (1975) 375
7. S.Matsuo, U.Mizutani, T.B.Massalski and S.Noguchi, "The superconducting transition temperature in β -phase Ag-Zn alloys", Phys.Rev. **B12** (1975) 4941
8. U.Mizutani and T.B.Massalski, "Specific heats of β phase and β' phase Ag-Al alloys in the range 1.5-4.2 K", J.Phys.F: Metal Phys. **5** (1975) 2262
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14. J.Bevk, T.B.Massalski and U.Mizutani, "Specific heat of Au-Cd β and β' alloys in the range 1.5 and 4.2 K", Phys.Rev. **B16** (1977) 3456
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