

# Hideyuki Yasuda

## List of Publications by Citations

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205  
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ext. citations

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#	Paper	IF	Citations
205	Direct observation of stray crystal formation in unidirectional solidification of SnBi alloy by X-ray imaging. <i>Journal of Crystal Growth</i> , <b>2004</b> , 262, 645-652	1.6	179
204	The role of trace element segregation in the eutectic modification of hypoeutectic AlBi alloys. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 489, 415-420	5.7	117
203	Development of X-ray Imaging for Observing Solidification of Carbon Steels. <i>ISIJ International</i> , <b>2011</b> , 51, 402-408	1.7	89
202	Determination of strontium segregation in modified hypoeutectic AlBi alloy by micro X-ray fluorescence analysis. <i>Scripta Materialia</i> , <b>2006</b> , 55, 787-790	5.6	89
201	The influence of Ni and Zn additions on microstructure and phase transformations in Sn0.7Cu/Cu solder joints. <i>Acta Materialia</i> , <b>2015</b> , 83, 357-371	8.4	85
200	Elasticity of Ni-based L12-type intermetallic compounds. <i>Acta Metallurgica Et Materialia</i> , <b>1992</b> , 40, 381-387		84
199	Granular deformation mechanisms in semi-solid alloys. <i>Acta Materialia</i> , <b>2011</b> , 59, 4933-4943	8.4	79
198	Levitation of metallic melt by using the simultaneous imposition of the alternating and the static magnetic fields. <i>Journal of Crystal Growth</i> , <b>2004</b> , 260, 475-485	1.6	76
197	Direct observation of deformation in semi-solid carbon steel. <i>Scripta Materialia</i> , <b>2011</b> , 64, 1129-1132	5.6	68
196	In situ observation of solidification phenomena in AlCu and FeBiAl alloys. <i>International Journal of Cast Metals Research</i> , <b>2009</b> , 22, 15-21	1	68
195	Effect of Magnetic Field on Solidification in Cu-Pb Monotectic Alloys. <i>ISIJ International</i> , <b>2003</b> , 43, 942-949	1.7	68
194	Coupled growth of unidirectionally solidified Al <sub>2</sub> O <sub>3</sub> /Mg eutectic ceramics. <i>Journal of Crystal Growth</i> , <b>2002</b> , 244, 384-392	1.6	55
193	Cu <sub>6</sub> Sn <sub>5</sub> crystal growth mechanisms during solidification of electronic interconnections. <i>Acta Materialia</i> , <b>2017</b> , 126, 540-551	8.4	51
192	Rapid Cu <sub>6</sub> Sn <sub>5</sub> growth at liquid Sn/solid Cu interfaces. <i>Scripta Materialia</i> , <b>2015</b> , 100, 17-20	5.6	48
191	In situ investigation of unidirectional solidification in Sn0.7Cu and Sn0.7Cu0.06Ni. <i>Acta Materialia</i> , <b>2011</b> , 59, 4043-4054	8.4	48
190	Suppression of Cu <sub>6</sub> Sn <sub>5</sub> in TiO <sub>2</sub> reinforced solder joints after multiple reflow cycles. <i>Materials and Design</i> , <b>2016</b> , 108, 418-428	8.1	48
189	Fabrication of aligned pores in aluminum by electrochemical dissolution of monotectic alloys solidified under a magnetic field. <i>Scripta Materialia</i> , <b>2006</b> , 54, 527-532	5.6	47

188	In situ observation of nucleation, fragmentation and microstructure evolution in SnBi and AlCu alloys. <i>International Journal of Cast Metals Research</i> , <b>2008</b> , 21, 125-128	1	44
187	Alignment of BiMn Crystal Orientation in Bi-20 at%Mn alloys by Laser Melting under a Magnetic Field. <i>Materials Transactions</i> , <b>2003</b> , 44, 2550-2554	1.3	43
186	Growth orientations and mechanical properties of Cu <sub>6</sub> Sn <sub>5</sub> and (Cu,Ni) <sub>6</sub> Sn <sub>5</sub> on poly-crystalline Cu. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 536, 38-46	5.7	41
185	A real-time synchrotron X-ray study of primary phase nucleation and formation in hypoeutectic AlBi alloys. <i>Journal of Crystal Growth</i> , <b>2015</b> , 430, 122-137	1.6	40
184	Effect of Ni on the Formation and Growth of Primary Cu <sub>6</sub> Sn <sub>5</sub> Intermetallics in Sn-0.7 wt.%Cu Solder Pastes on Cu Substrates During the Soldering Process. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 154-163	1.9	39
183	Selection of eutectic systems in Al <sub>2</sub> O <sub>3</sub> /ZrO <sub>2</sub> ceramics. <i>Science and Technology of Advanced Materials</i> , <b>2001</b> , 2, 67-71	7.1	38
182	Periodic structure during unidirectional solidification for peritectic CdSn alloys. <i>Journal of Crystal Growth</i> , <b>2000</b> , 210, 637-645	1.6	37
181	Formation of banded structure in PbBi peritectic alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>1999</b> , 262, 238-245	5.3	36
180	Dilatancy in semi-solid steels at high solid fraction. <i>Acta Materialia</i> , <b>2017</b> , 125, 187-195	8.4	35
179	Development of a microwave sintered TiO <sub>2</sub> reinforced Sn0.7wt%Cu0.05wt%Ni alloy. <i>Materials and Design</i> , <b>2015</b> , 82, 136-147	8.1	35
178	Dendrite fragmentation induced by massive-like $\beta$ transformation in Fe-C alloys. <i>Nature Communications</i> , <b>2019</b> , 10, 3183	17.4	35
177	In-situ observation of peritectic growth with faceted interface. <i>Journal of Crystal Growth</i> , <b>1996</b> , 158, 128-135	1.6	34
176	In situ imaging of microstructure formation in electronic interconnections. <i>Scientific Reports</i> , <b>2017</b> , 7, 40010	4.9	33
175	Real time synchrotron X-ray observations of solidification in hypoeutectic AlBi alloys. <i>Materials Characterization</i> , <b>2013</b> , 85, 134-140	3.9	33
174	In situ study of granular micromechanics in semi-solid carbon steels. <i>Acta Materialia</i> , <b>2013</b> , 61, 4169-4178	8.4	32
173	The influence of ageing on the stabilisation of interfacial (Cu,Ni) <sub>6</sub> (Sn,Zn) <sub>5</sub> and (Cu,Au,Ni) <sub>6</sub> Sn <sub>5</sub> intermetallics in Pb-free Ball Grid Array (BGA) solder joints. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 685, 471-482	5.7	31
172	Massive transformation from $\beta$ phase to $\alpha$ phase in FeCu alloys and strain induced in solidifying shell. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 33, 012036	0.4	31
171	Reduced droplet coarsening in electromagnetically levitated and phase-separated CuCo alloys by imposition of a static magnetic field. <i>Scripta Materialia</i> , <b>2008</b> , 59, 1002-1005	5.6	31

170	Effect of Magnetic Field on Periodic Structure Formation in Pb&dash;Bi and Sn&dash;Cd Peritectic Alloys. <i>Materials Transactions, JIM</i> , <b>2000</b> , 41, 1005-1012		29
169	Eutectic Morphology of Al-7Si-0.3Mg Alloys with Scandium Additions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2014</b> , 45, 4549-4560	2.3	28
168	Recent Progress of EPM in Steelmaking, Casting, and Solidification Processing. <i>ISIJ International</i> , <b>2007</b> , 47, 619-626	1.7	28
167	Formation of Crystallographically Aligned BiMn Grains by Semi-solid Processing of Rapidly Solidified Bi-Mn Alloys under a Magnetic Field. <i>Materials Transactions</i> , <b>2003</b> , 44, 2207-2212	1.3	28
166	Fabrication of porous aluminum with deep pores by using AlMn monotectic solidification and electrochemical etching. <i>Materials Letters</i> , <b>2004</b> , 58, 911-915	3.3	28
165	Influence of Mg on Solidification of Hypereutectic Cast Iron: X-ray Radiography Study. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2015</b> , 46, 4937-4946	2.3	25
164	Particle size distribution and composition in phase-separated Cu <sub>75</sub> Co <sub>25</sub> alloys under various magnetic fields. <i>Scripta Materialia</i> , <b>2014</b> , 82, 5-8	5.6	24
163	Impact of melt convection induced by ultrasonic wave on dendrite growth in SnBi alloys. <i>Materials Letters</i> , <b>2015</b> , 150, 135-138	3.3	24
162	In-situobservation of peritectic solidification in Sn-Cd and Fe-C alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 27, 012084	0.4	24
161	Investigation of the Melt Flow on Solidified Structure by a Levitation Technique Using Alternative and Static Magnetic Fields. <i>ISIJ International</i> , <b>2005</b> , 45, 991-996	1.7	24
160	Glassy Solidification Criterion of Zr <sub>50</sub> Cu <sub>40</sub> Al <sub>10</sub> Alloy. <i>Materials Transactions</i> , <b>2007</b> , 48, 1363-1372	1.3	23
159	Phase selection and microstructure formation in undercooled Co <sub>81.8</sub> at.% Si melts under various containerless processing conditions. <i>Acta Materialia</i> , <b>2013</b> , 61, 4861-4873	8.4	22
158	Selective dissolution of nanolamellar Ti <sub>81</sub> at.% Al alloy single crystals. <i>Acta Materialia</i> , <b>2010</b> , 58, 2876-2886	8.6	22
157	Ni segregation in the interfacial (Cu,Ni) <sub>6</sub> Sn <sub>5</sub> intermetallic layer of Sn-0.7Cu-0.05Ni/Cu ball grid array (BGA) joints. <i>Intermetallics</i> , <b>2014</b> , 54, 20-27	3.5	20
156	Lift-off phenomenon in wave soldering. <i>Acta Materialia</i> , <b>2000</b> , 48, 4475-4481	8.4	18
155	The effect of Bi on the microstructure, electrical, wettability and mechanical properties of Sn-0.7Cu-0.05Ni alloys for high strength soldering. <i>Materials and Design</i> , <b>2020</b> , 186, 108281	8.1	18
154	Thermal Conductivity Measurements of Liquid Mercury and Gallium by a Transient Hot-Wire Method in a Static Magnetic Field. <i>International Journal of Thermophysics</i> , <b>2006</b> , 27, 1760-1777	2.1	17
153	Solidification and shape casting of Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> -AP eutectic ceramics from the undercooled melt produced by melting Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> -AP eutectics. <i>Science and Technology of Advanced Materials</i> , <b>2004</b> , 5, 207-217 <sup>1</sup>	7.1	17

152	Nonrandom point defect configurations and driving force transitions for grain boundary segregation in trivalent cation doped ZrO <sub>2</sub> . <i>Langmuir</i> , <b>2014</b> , 30, 14179-88	4	16
151	Characterization of Shear Deformation Based on In-situ Observation of Deformation in Semi-solid Al-Cu Alloys and Water-particle Mixture. <i>ISIJ International</i> , <b>2013</b> , 53, 1195-1201	1.7	16
150	In Situ Observation of Deformation in Semi-solid Fe-C Alloys at High Shear Rate. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2014</b> , 45, 5613-5623	2.3	16
149	Real-Time Radiographic Observation of Solidification Behavior of Al-Si-Cu Casting Alloys with the Variation of Iron Content. <i>Materials Transactions</i> , <b>2012</b> , 53, 374-379	1.3	16
148	Three-dimensional observation of the entangled eutectic structure in the Al <sub>2</sub> O <sub>3</sub> -Al <sub>2</sub> SiO <sub>3</sub> system. <i>Journal of the European Ceramic Society</i> , <b>2005</b> , 25, 1397-1403	6	16
147	Phase Selection of the Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> System Controlled by Nucleation. <i>Materials Transactions</i> , <b>2001</b> , 42, 238-244	1.3	16
146	Kinetics of the $\beta$ -Phase Interface in the massive-like transformation in Fe-0.3C-0.6Mn-0.3Si alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 84, 012062	0.4	15
145	Interface Energies of Hetero- and Homo-Phase Boundaries and Their Impact on $\delta$ - $\gamma$ ; Massive-Like Phase Transformations in Carbon Steel. <i>Materials Transactions</i> , <b>2015</b> , 56, 1461-1466	1.3	15
144	Real-time synchrotron x-ray observations of equiaxed solidification of aluminium alloys and implications for modelling. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 84, 012014	0.4	15
143	Elastic Constants of Co <sub>3</sub> Ti and CoTi Intermetallic Compounds. <i>Materials Transactions, JIM</i> , <b>1991</b> , 32, 48-51		15
142	Semi-solid deformation of Al-Cu alloys: A quantitative comparison between real-time imaging and coupled LBM-DEM simulations. <i>Acta Materialia</i> , <b>2019</b> , 163, 208-225	8.4	15
141	Suppression of Cu <sub>3</sub> Sn in the Sn-10Cu peritectic alloy by the addition of Ni. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 766, 1003-1013	5.7	14
140	Concurrent $\gamma$ -Phase Nucleation as a Possible Mechanism of $\delta$ - $\gamma$ ; Massive-like Phase Transformation in Carbon Steel: Numerical Analysis Based on Effective Interface Energy. <i>Materials Transactions</i> , <b>2015</b> , 56, 1467-1474	1.3	14
139	Solidification of Sn-0.7Cu-0.15Zn Solder: In Situ Observation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2014</b> , 45, 918-926	2.3	14
138	Effect of the Melt Flow on the Solidified Structure of Middle Carbon Steel by Means of the Levitation Method Using Alternating and Static Magnetic Fields. <i>ISIJ International</i> , <b>2007</b> , 47, 612-618	1.7	14
137	Influence of Ni on the refinement and twinning of primary Cu <sub>6</sub> Sn <sub>5</sub> in Sn-0.7Cu-0.05Ni. <i>Intermetallics</i> , <b>2018</b> , 102, 34-45	3.5	14
136	Al <sub>8</sub> Mn <sub>5</sub> Particle Settling and Interactions with Oxide Films in Liquid AZ91 Magnesium Alloys. <i>Jom</i> , <b>2019</b> , 71, 2235-2244	2.1	13
135	Nucleation and Growth in Undercooled Melts of Bulk-Metallic-Glass Forming Zr <sub>60</sub> Ni <sub>25</sub> Al <sub>15</sub> Alloy. <i>Materials Transactions</i> , <b>2005</b> , 46, 2762-2767	1.3	13

134	Time-resolved and In-situ Observation of $\beta$ Transformation during Unidirectional Solidification in Fe-C Alloys. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2019</b> , 105, 290-298	0.5	13
133	In situ studies revealing dendrite and eutectic growth during the solidification of Sn-0.7Cu-0.5Ag Pb-free solder alloy. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 797, 804-810	5.7	12
132	Rheological transitions in semi-solid alloys: In-situ imaging and LBM-DEM simulations. <i>Acta Materialia</i> , <b>2020</b> , 191, 24-42	8.4	12
131	Competition between stable and metastable eutectic growth in Sn-Ni alloys. <i>Acta Materialia</i> , <b>2018</b> , 149, 119-131	8.4	12
130	Synchrotron Micro-XRF Measurements of Trace Element Distributions in BGA Type Solders and Solder Joints. <i>Transactions of the Japan Institute of Electronics Packaging</i> , <b>2010</b> , 3, 40-46	0.3	12
129	Chain structure in the unidirectionally solidified Al <sub>2</sub> O <sub>3</sub> /Ag/ZrO <sub>2</sub> eutectic composite. <i>Journal of Crystal Growth</i> , <b>2009</b> , 311, 3765-3770	1.6	12
128	Formation of Crystallographically Aligned Grains during Coarsening in a Magnetic Field. <i>Materials Transactions</i> , <b>2003</b> , 44, 2555-2562	1.3	12
127	Morphological Variation of Fe/Cr-Rich Intermetallic Phase in Recycled Al-Si Alloy as a Function of Solidification Rate: Time-Resolved Radiography. <i>Materials Science Forum</i> , <b>2010</b> , 654-656, 974-977	0.4	11
126	Undercooled Melt Formation by Melting of Metastable Eutectic Structure in Al <sub>2</sub> O <sub>3</sub> -Y <sub>2</sub> O <sub>3</sub> -ZrO <sub>2</sub> System. <i>Materials Transactions</i> , <b>2002</b> , 43, 2847-2854	1.3	11
125	Weak itinerant-electron ferromagnetism in amorphous Fe-Ti alloys. <i>Journal of Physics Condensed Matter</i> , <b>1990</b> , 2, 3595-3610	1.8	11
124	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. <i>Jom</i> , <b>2014</b> , 66, 1415-1424	2.1	9
123	Undercooling and rapid solidification of Cu <sub>84</sub> Co <sub>16</sub> alloys under a static magnetic field. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 144, 012117	0.3	9
122	Effect of Ionic Radius and Resultant Two-Dimensionality of Phonons on Thermal Conductivity in M x CoO <sub>2</sub> (M = Li, Na, K) by Perturbed Molecular Dynamics. <i>Journal of Electronic Materials</i> , <b>2010</b> , 39, 1439-1445	1.9	9
121	Prediction of porosity defect in spheroidal graphite iron castings. <i>International Journal of Cast Metals Research</i> , <b>2003</b> , 16, 293-299	1	9
120	Undercooled Melt Formation and Shaping of Alumina/Yttrium Aluminum Garnet Eutectic Ceramics. <i>Journal of the American Ceramic Society</i> , <b>2003</b> , 86, 1818-1820	3.8	9
119	Fabrication of Metallic Porous Media by Semisolid Processing Using Laser Irradiation. <i>Materials Transactions</i> , <b>2001</b> , 42, 309-315	1.3	9
118	Selection of the Massive-like $\beta$ Transformation due to Nucleation of Metastable $\beta$ Phase in Fe-18 Mass%Cr-Ni Alloys with Ni Contents of 8, 11, 14 and 20 Mass%. <i>ISIJ International</i> , <b>2019</b> , 59, 459-465	1.7	9
117	Impacts of Interface Energies and Transformation Strain from BCC to FCC on Massive-like $\beta$ Transformation in Steel. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 84, 012049	0.4	8

116	Impact of Dynamic Interlayer Interactions on Thermal Conductivity of Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> . <i>Journal of Electronic Materials</i> , <b>2014</b> , 43, 1905-1915	1.9	8
115	High Temperature Characteristics of Unidirectionally Solidified Eutectic Ceramic Composites and some Potential Applications. <i>Materials Science Forum</i> , <b>2010</b> , 638-642, 997-1002	0.4	8
114	Three-dimensional alignment of FeSi <sub>2</sub> with orthorhombic symmetry by an anisotropic magnetic field. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 165, 012021	0.3	8
113	Model Experiment of Particle Engulfment into the Solidifying Shell under Fluid Flow. <i>ISIJ International</i> , <b>2004</b> , 44, 1366-1375	1.7	8
112	Phenomenological Discussion of Fe and Co Film Electrodeposited in a Magnetic Field. <i>ISIJ International</i> , <b>2005</b> , 45, 1001-1004	1.7	8
111	Production of Undercooled Melt by Heating the Metastable Al <sub>2</sub> O <sub>3</sub> -YAP Eutectic Structure. <i>Materials Transactions</i> , <b>2001</b> , 42, 2124-2130	1.3	8
110	A Model for Oscillatory Structure during Unidirectional Solidification of Peritectic Alloys. <i>Materials Transactions, JIM</i> , <b>1999</b> , 40, 373-376		8
109	Nonequilibrium Crystalline and Amorphous Zr–Zn Alloys Produced by Vapor Quenching. <i>Transactions of the Japan Institute of Metals</i> , <b>1987</b> , 28, 692-698		8
108	Derivation of Interatomic Potentials from Ab-initio Calculations for Molecular Dynamics Simulations of NaXCoO <sub>2</sub> . <i>Transactions of the Materials Research Society of Japan</i> , <b>2010</b> , 35, 205-208	0.2	7
107	Structure simulation in unidirectionally solidified turbine blade by dendrite envelope tracking model (II): model validation and defects prediction. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2006</b> , 16, 753-759	3.3	7
106	X-ray diffraction study of amorphous Fe-Ti alloys. <i>Journal of Physics Condensed Matter</i> , <b>1990</b> , 2, 9967-9974		7
105	Investigation using 4D-CT of massive-like transformation from the $\delta$ to $\beta$ phase during and after solidification in carbon steels. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2019</b> , 529, 012013	0.4	7
104	On modeling of grain boundary segregation in aliovalent cation doped ZrO <sub>2</sub> : Critical factors in site-selective point defect occupancy. <i>Scripta Materialia</i> , <b>2015</b> , 102, 91-94	5.6	6
103	Characterization of Growing Dendrites in CrMnFeCoNi High-Entropy Alloy by Time-Resolved and In-Situ Tomography. <i>Materials Transactions</i> , <b>2020</b> , 61, 596-604	1.3	6
102	In-situ Measurements of Solute Partition Coefficients between Solid and Liquid Phases in FeCrNiMoCu Alloys during Solidification. <i>ISIJ International</i> , <b>2020</b> , 60, 276-285	1.7	6
101	Impact of interplay between magnetic field, transformation strain, and coarsening on variant selection in L10-type FePd. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 073501	2.5	6
100	Synchrotron radiography of direct-shear in semi-solid alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 27, 012086	0.4	6
99	Real Time Synchrotron X-Ray Imaging for Nucleation and Growth of Cu <sub>6</sub> Sn <sub>5</sub> in Sn-7Cu-0.05Ni High Temperature Lead-Free Solder Alloys. <i>Advanced Materials Research</i> , <b>2012</b> , 626, 200-204	0.5	6

98	Application of an Optical DTA for Morphological Transition in the Al <sub>2</sub> O <sub>3</sub> -YAP-ZrO <sub>2</sub> Metastable Eutectic System. <i>ISIJ International</i> , <b>2003</b> , 43, 1733-1741	1.7	6
97	Estimation of Generated Power of a Thermoelectric Device Utilizing Porous Medium. <i>Materials Transactions, JIM</i> , <b>1999</b> , 40, 447-450		6
96	X-Ray Imaging of Formation and Growth of Spheroidal Graphite in Ductile Cast Iron. <i>Materials Science Forum</i> , <b>2018</b> , 925, 104-109	0.4	5
95	Characterization of dendritic growth in Fe-C system using time-resolved X-ray tomography and physics-based filtering. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2019</b> , 529, 012023	0.4	5
94	Solidification of Al <sub>2</sub> O <sub>3</sub> -YAG eutectic composites with off-metastable eutectic composition from undercooled melt produced by melting Al <sub>2</sub> O <sub>3</sub> -YAP eutectics. <i>Journal of the European Ceramic Society</i> , <b>2012</b> , 32, 2137-2143	6	5
93	Atomistic Analyses of Competition between Site-Selective Segregation and Association of Point Defects at Grain Boundary in Y <sub>2</sub> O <sub>3</sub> -Doped ZrO <sub>2</sub> . <i>Materials Transactions</i> , <b>2015</b> , 56, 1344-1349	1.3	5
92	High Temperature Characteristics of Unidirectionally Solidified Al <sub>2</sub> O <sub>3</sub> /GAP Eutectic Composites with a Novel Microstructure. <i>Materials Science Forum</i> , <b>2012</b> , 706-709, 246-251	0.4	5
91	Numerical Analyses of Effectiveness of Magnetic Field on Variant Selection in FePd by Phase Field Modeling. <i>ISIJ International</i> , <b>2010</b> , 50, 1908-1913	1.7	5
90	Effect of application of a high magnetic field on the microstructure of Fe substituted layered double hydroxide clay for a magnetic application. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 09N516	2.5	5
89	Effect of High Magnetic Field on Ferrite Materials Obtained by Calcination of Layered Double Hydroxide. <i>Materials Transactions</i> , <b>2007</b> , 48, 2877-2882	1.3	5
88	Effects of Shaping Conditions on the Microstructure and the Mechanical Property of the Al <sub>2</sub> O <sub>3</sub> -YAG Eutectic Composite Produced by Melting the Al <sub>2</sub> O <sub>3</sub> -YAP Eutectic Structure. <i>Materials Transactions</i> , <b>2007</b> , 48, 2312-2315	1.3	5
87	Undercooled Melt Shaping of Al <sub>2</sub> O <sub>3</sub> -YAG Eutectic Composite by Melting the Al <sub>2</sub> O <sub>3</sub> -YAP Eutectic Structure. <i>Materials Science Forum</i> , <b>2005</b> , 475-479, 2709-2712	0.4	5
86	Fabrication of PbTe Porous Thermoelectric Materials by KCl-mixing. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>1999</b> , 63, 1468-1474	0.4	5
85	Microstructure and growth kinetic study in Sn-Cu transient liquid phase sintering solder paste. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2020</b> , 31, 11077-11094	2.1	4
84	Observation of semisolid deformation by using 4D-CT and 3DXRD. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 861, 012065	0.4	4
83	Effect of TiO <sub>2</sub> on the Formation of Primary and Interfacial Cu <sub>6</sub> Sn <sub>5</sub> in Sn-0.7wt%Cu and Sn-0.7wt%Cu-0.05wt%Ni Solder Paste during Soldering. <i>Key Engineering Materials</i> , <b>2016</b> , 700, 161-169	0.4	4
82	In-situ Measurement of Solute Partition Coefficient in Fe-Cr-Ni-Mo Alloys by Using X-ray Imaging and X-ray Florescence Analysis. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2017</b> , 103, 678-687	0.5	4
81	Regular Structure Formation of Hypermonotectic Al-In Alloys. <i>Materials Science Forum</i> , <b>2010</b> , 649, 131-136	4	4



80	Does reduced fluid flow alter Fe content of NdFeB ingots?. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 493, L8-L11	5.7	4
79	Macroscopic modelling of semisolid deformation for considering segregation bands induced by shear deformation. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 33, 012053	0.4	4
78	Formation and microstructure of Al <sub>2</sub> O <sub>3</sub> -YAG eutectic ceramics by phase transformation from metastable system to equilibrium system. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 165, 012006	0.3	4
77	Effects of magnetic field annealing on magnetic properties and microstructure of Nd-Fe-B-Ti-C based nanocomposite permanent magnet. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2007</b> , 204, 4145-4148	1.6	4
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75	Micro-tomographic imaging for material sciences at BL47XU in SPring-8. <i>European Physical Journal Special Topics</i> , <b>2003</b> , 104, 45-48		4
74	Elastic constants of some intermetallic compounds as determined by the rectangular parallelepiped resonance method. <i>Journal of Alloys and Compounds</i> , <b>1994</b> , 211-212, 585-588	5.7	4
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72	Time Evolution of Solidification Structure in Ductile Cast Iron with Hypereutectic Compositions. <i>International Journal of Metalcasting</i> , <b>2020</b> , 14, 794-801	1.4	3
71	Effect of Elemental Combination on Microstructure and Mechanical Properties of Quaternary Refractory Medium Entropy Alloys. <i>Materials Transactions</i> , <b>2020</b> , 61, 577-586	1.3	3
70	In Situ Observations of Tensile and Compressive Deformations in Semi Solid Metallic Alloys Using Time-resolved X-ray Imaging. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2017</b> , 103, 668-677	0.5	3
69	In Situ Soldering Process Technique by Synchrotron X-Ray Imaging. <i>Applied Mechanics and Materials</i> , <b>2015</b> , 754-755, 508-512	0.3	3
68	?????????????????????????????. <i>Keikin-zoku/Journal of Japan Institute of Light Metals</i> , <b>2011</b> , 61, 736-742	0.3	3
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66	Effect of Spatial Distribution of Local Magnetization on Microstructure Formation in L10-type Ferromagnetic Alloys under External Magnetic Field. <i>Transactions of the Materials Research Society of Japan</i> , <b>2013</b> , 38, 673-676	0.2	3
65	In situ Observation of Dendrite Growth in Sn-Bi Alloys under Ultrasonic Vibration Using Time-resolved X-ray Imaging. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2016</b> , 102, 170-178	0.5	3
64	Quantitative analysis of solidification of equiaxed grains in Al-Cu alloy refined by inoculant TiB <sub>2</sub> particles with using time-resolved X-ray tomography. <i>Keikin-zoku/Journal of Japan Institute of Light Metals</i> , <b>2020</b> , 70, 339-346	0.3	3
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61	Peritectic phase formation kinetics of directionally solidifying Sn-Cu alloys within a broad growth rate regime. <i>Acta Materialia</i> , <b>2021</b> , 220, 117295	8.4	3
60	Time-resolved and In-situ Observation of $\beta$ Transformation during Unidirectional Solidification in Fe-C Alloys. <i>ISIJ International</i> , <b>2020</b> , 60, 930-938	1.7	2
59	Synchrotron Radiography of Sn-0.7Cu-0.05Ni Solder Solidification. <i>Solid State Phenomena</i> , <b>2018</b> , 273, 66-71	0.4	2
58	Large-Field X-ray Imaging at SPring-8 BL20B2. <i>Synchrotron Radiation News</i> , <b>2015</b> , 28, 30-35	0.6	2
57	In-situ Observation of Sn alloy solidification at SPring-8. <i>Yosetsu Gakkai Shi/Journal of the Japan Welding Society</i> , <b>2009</b> , 78, 600-603	0.1	2
56	Fabrication of Al <sub>2</sub> O <sub>3</sub> -YAG Equilibrium Eutectic Composites via Transformation from Fine Al <sub>2</sub> O <sub>3</sub> and YAP Powder Mixtures. <i>Materials Transactions</i> , <b>2012</b> , 53, 1124-1129	1.3	2
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54	The effect of Ni on the growth morphology of primary $\beta$ phase in an In-35wt%Sn alloy. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 897, 163172	5.7	2
53	Transformation from Ferrite to Austenite during/after Solidification in Peritectic Steel Systems: an X-ray Imaging Study. <i>ISIJ International</i> , <b>2020</b> , 60, 2755-2764	1.7	2
52	Real-Time Observation of AZ91 Solidification by Synchrotron Radiography. <i>Minerals, Metals and Materials Series</i> , <b>2017</b> , 597-603	0.3	2
51	Characterization of Shear Deformation Based on In-situ Observation of Deformation in Semi-Solid Al-Cu Alloys and Water-Particle Mixture. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2013</b> , 99, 141-148	0.5	2
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49	Rapid fabrication of tin-copper anodes for lithium-ion battery applications. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 867, 159031	5.7	2
48	Two-dimensional phase-field study for spangle texture formation in hot-dip galvanizing. <i>Computational Materials Science</i> , <b>2021</b> , 187, 110077	3.2	2
47	Origin of Primary Cu <sub>6</sub> Sn <sub>5</sub> in Hypoeutectic Solder Alloys and a Method of Suppression to Improve Mechanical Properties. <i>Journal of Electronic Materials</i> , <b>2021</b> , 50, 710-722	1.9	2
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45	Effects of Surface Finish on Sn-3.0Ag-0.5Cu Solder Joint Microstructure and Strength. <i>Journal of Electronic Materials</i> , <b>2021</b> , 50, 855-868	1.9	2

44	Applications of High Magnetic Fields in Materials Processing. <i>Fluid Mechanics and Its Applications</i> , <b>2007</b> , 329-344	0.2	2
43	Localization of shear strain and shear band formation induced by deformation in semi-solid Al-Cu alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 84, 012078	0.4	1
42	In situ observation of austenite coarsening induced by massive-like transformation during solidification in Fe-C alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2020</b> , 861, 012051	0.4	1
41	Numerically-quantified two dimensionality of microstructure evolution accompanying variant selection of FePd. <i>Materials Research Express</i> , <b>2015</b> , 2, 076502	1.7	1
40	Yet Another Marked Difference among Impurities as Modifier Elements for Refinement of Eutectic Si in Al-Si Alloys. <i>Materials Transactions</i> , <b>2015</b> , 56, 1475-1483	1.3	1
39	Direct Observation of Shear Deformation in Semi-solid Alloys Using X-ray Imaging. <i>Materia Japan</i> , <b>2012</b> , 51, 561-568	0.1	1
38	Crystal growth in the bulk-metallic-glass Zr-based alloys by using the DC + AC levitation method. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 144, 012056	0.3	1
37	Synthesis of porous thermoelectric devices		1
36	DEVELOPMENT OF MAGNETO-VECTOR MATERIALS THROUGH VECTOR PROCESSING USING HIGH MAGNETIC FIELDS. <i>Phosphorus Research Bulletin</i> , <b>2004</b> , 17, 45-50	0.3	1
35	Nondestructive Evaluation of Thermal Phase Growth in Solder Ball Micro-Joints by Synchrotron Radiation X-Ray Micro-Tomography <b>2005</b> , 1115		1
34	Topologically and Chemically Homogeneous Amorphous Fe-Ti Alloys. <i>Physica Status Solidi A</i> , <b>1992</b> , 129, 59-68		1
33	Controlling the distribution of porosity during transient liquid phase bonding of Sn-based solder joint. <i>Materials Today Communications</i> , <b>2022</b> , 31, 103248	2.5	1
32	Three-dimensional Observation of Al <sub>2</sub> O <sub>3</sub> -GAP Eutectic Structure by X-ray Micro CT. <i>Materia Japan</i> , <b>2007</b> , 46, 819-819	0.1	1
31	Preface to the Special Issue on Advanced Application of Electromagnetic Force to Materials Processing <i>ISIJ International</i> , <b>2003</b> , 43, 799-800	1.7	1
30	Development in In Situ Observation of Deformation in Semi-solid Alloys Using X-Ray Imaging <b>2014</b> , 231-243		1
29	Effect of Magnetic Field on Macroseggregation in (Bi, Sb) <sub>2</sub> Te <sub>3</sub> . <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>1997</b> , 61, 1288-1295	0.4	1
28	Influence of Convection on Dendrite Growth by the AC + DC Levitation Technique <b>305-320</b>		1
27	Effect of Trace Elements on the Liquid Structure of Sn-Cu Alloys Investigated by High Energy X-Ray Diffraction. <i>Solid State Phenomena</i> , <b>2018</b> , 273, 101-106	0.4	0

26	Properties of Sn-3wt%Ag-5wt%Cu alloys with CuSn intermetallics grain refined by Mg. <i>Materials Today Communications</i> , <b>2022</b> , 31, 103221	2.5	0
25	Microstructure Evolution of Ag/TiO <sub>2</sub> Thin Film. <i>Magnetochemistry</i> , <b>2021</b> , 7, 14	3.1	0
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22	Liquid/Solid Interaction of Sn-58Bi/Sn-3.0Ag-0.5Cu Dissimilar Joints during Soldering at Low Temperature by In-Situ Synchrotron Imaging. <i>Jom</i> , 1	2.1	0
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19	Solidification of Sn-3Ag-0.5Cu and Sn-0.7Cu-0.05Ni Solders. <i>Materials Science Forum</i> , <b>2016</b> , 857, 44-48	0.4	
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12	Structure simulation in unidirectionally solidified turbine blade by dendrite envelope tracking model(I): numerical modeling. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2006</b> , 16, 235-241	3.3	
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10	Evaluation of a Thermoelectric Device Utilizing Porous Medium. <i>Materials Research Society Symposia Proceedings</i> , <b>2000</b> , 626, 1121		
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8	Investigation on the Solidification and Phase Transformation in Pb-Free Solders Using In Situ Synchrotron Radiography and Diffraction: A Review. <i>Acta Metallurgica Sinica (English Letters)</i> , 1	2.5
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