

Tomoya Nagira

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3551868/publications.pdf>

Version: 2024-02-01

81
papers

1,456
citations

304743

22
h-index

361022

35
g-index

82
all docs

82
docs citations

82
times ranked

723
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | Development of X-ray Imaging for Observing Solidification of Carbon Steels. ISIJ International, 2011, 51, 402-408. | 1.4 | 100 |
| 2 | Granular deformation mechanisms in semi-solid alloys. Acta Materialia, 2011, 59, 4933-4943. | 7.9 | 89 |
| 3 | <i>In situ</i> observation of solidification phenomena in Al-Cu and Fe-Si-Al alloys. International Journal of Cast Metals Research, 2009, 22, 15-21. | 1.0 | 81 |
| 4 | Direct observation of deformation in semi-solid carbon steel. Scripta Materialia, 2011, 64, 1129-1132. | 5.2 | 81 |
| 5 | In situ investigation of unidirectional solidification in Sn-0.7Cu and Sn-0.7Cu-0.06Ni. Acta Materialia, 2011, 59, 4043-4054. | 7.9 | 56 |
| 6 | Evaluation of dynamic development of grain structure during friction stir welding of pure copper using a quasi in situ method. Journal of Materials Science and Technology, 2019, 35, 1412-1421. | 10.7 | 56 |
| 7 | Thermoelectric properties of $(\text{Na}_{1-y}\text{My})\text{Co}_2\text{O}_4$ (M=K, Sr, Y, Nd, Sm and Yb; $y=0.01\sim 0.35$). Journal of Alloys and Compounds, 2003, 348, 263-269. | 5.5 | 52 |
| 8 | <i>In situ</i> observation of nucleation, fragmentation and microstructure evolution in Sn-Bi and Al-Cu alloys. International Journal of Cast Metals Research, 2008, 21, 125-128. | 1.0 | 48 |
| 9 | Experimental evaluation of strain and strain rate during rapid cooling friction stir welding of pure copper. Science and Technology of Welding and Joining, 2019, 24, 352-359. | 3.1 | 47 |
| 10 | Dilatancy in semi-solid steels at high solid fraction. Acta Materialia, 2017, 125, 187-195. | 7.9 | 40 |
| 11 | Massive transformation from β phase to α phase in Fe-C alloys and strain induced in solidifying shell. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012036. | 0.6 | 38 |
| 12 | Real time synchrotron X-ray observations of solidification in hypoeutectic Al-Si alloys. Materials Characterization, 2013, 85, 134-140. | 4.4 | 34 |
| 13 | In situ study of granular micromechanics in semi-solid carbon steels. Acta Materialia, 2013, 61, 4169-4179. | 7.9 | 34 |
| 14 | Investigation of temperature dependent microstructure evolution of pure iron during friction stir welding using liquid CO ₂ rapid cooling. Materials Characterization, 2018, 137, 24-38. | 4.4 | 33 |
| 15 | Microstructure evolution of Cu-30Zn during friction stir welding. Journal of Materials Science, 2018, 53, 10423-10441. | 3.7 | 31 |
| 16 | Impact of melt convection induced by ultrasonic wave on dendrite growth in Sn-Bi alloys. Materials Letters, 2015, 150, 135-138. | 2.6 | 30 |
| 17 | Effect of Stacking Fault Energy on the Grain Structure Evolution of FCC Metals During Friction Stir Welding. Acta Metallurgica Sinica (English Letters), 2020, 33, 1001-1012. | 2.9 | 30 |
| 18 | Influence of Mg on Solidification of Hypereutectic Cast Iron: X-ray Radiography Study. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4937-4946. | 2.2 | 28 |

| # | ARTICLE | IF | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. <i>Jom</i> , 2014, 66, 1415-1424. | 1.9 | 13 |
| 38 | Selection of the Massive-like γ - β Transformation due to Nucleation of Metastable γ Phase in Fe-18 Mass%Cr-Ni Alloys with Ni Contents of 8, 11, 14 and 20 Mass%. <i>ISIJ International</i> , 2019, 59, 459-465. | 1.4 | 13 |
| 39 | Time-resolved X-ray imaging of solidification cracking for Al-Cu alloy at the weld crater. <i>Materials Characterization</i> , 2020, 167, 110469. | 4.4 | 13 |
| 40 | In situ observation of solidification crack propagation for type 310S and 316L stainless steels during TIG welding using synchrotron X-ray imaging. <i>Journal of Materials Science</i> , 2021, 56, 10653-10663. | 3.7 | 12 |
| 41 | Microstructural Evolutions of 2N Grade Pure Al and 4N Grade High-Purity Al during Friction Stir Welding. <i>Materials</i> , 2021, 14, 3606. | 2.9 | 12 |
| 42 | Thermoelectric Properties of $\text{Na}_x\text{Co}_2\text{O}_4$ Prepared by the Polymerized Complex Method and Spark Plasma Sintering. <i>Materials Transactions</i> , 2003, 44, 1866-1871. | 1.2 | 11 |
| 43 | Effect of Partial Substitutions of Rare-earth Metals for Na-site on the Thermoelectric Properties of $\text{Na}_x\text{Co}_2\text{O}_4$ Prepared by the Polymerized Complex Method. <i>Materials Transactions</i> , 2004, 45, 1339-1345. | 1.2 | 11 |
| 44 | Flowering of Continuous Casting Process for Steel in Japan and New Fundamental Seeds to the Future. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2014, 100, 472-484. | 0.4 | 10 |
| 45 | Impacts of Interface Energies and Transformation Strain from BCC to FCC on Massive-like γ Transformation in Steel. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012049. | 0.6 | 10 |
| 46 | Synchrotron radiography of direct-shear in semi-solid alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 27, 012086. | 0.6 | 9 |
| 47 | Microstructure and Thermoelectric Properties of $\text{Na}_x\text{Co}_2\text{O}_4$ Synthesized by Spark Plasma Sintering.. <i>Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy</i> , 2002, 49, 406-411. | 0.2 | 8 |
| 48 | Solidification of Al_2O_3 -YAG eutectic composites with off-metastable eutectic composition from undercooled melt produced by melting Al_2O_3 -YAP eutectics. <i>Journal of the European Ceramic Society</i> , 2012, 32, 2137-2143. | 5.7 | 7 |
| 49 | Role of annealing twinning in microstructural evolution of high purity silver during friction stir welding. <i>Science and Technology of Welding and Joining</i> , 2019, 24, 644-651. | 3.1 | 7 |
| 50 | Thermoelectric Properties of $\text{Na}_x\text{Co}_2\text{O}_4$ Prepared by the Polymerized Complex Method and Hot-Pressing. <i>Materials Transactions</i> , 2003, 44, 155-160. | 1.2 | 6 |
| 51 | 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> , 2017, 103, 678-687. | 0.4 | 6 |
| 52 | Direct observation of solidification behaviors of Fe-Mn-Si alloys during TIG spot welding using synchrotron X-ray. <i>Scripta Materialia</i> , 2022, 216, 114743. | 5.2 | 6 |
| 53 | Effects of Shaping Conditions on the Microstructure and the Mechanical Property of the Al_2O_3 -YAG Eutectic Composite Produced by Melting the Al_2O_3 -YAP Eutectic Structure. <i>Materials Transactions</i> , 2007, 48, 2312-2315. | 1.2 | 5 |
| 54 | Formation and microstructure of Al_2O_3 -YAG eutectic ceramics by phase transformation from metastable system to equilibrium system. <i>Journal of Physics: Conference Series</i> , 2009, 165, 012006. | 0.4 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Macroscopic modelling of semisolid deformation for considering segregation bands induced by shear deformation. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012053. | 0.6 | 5 |
| 56 | Yet Another Marked Difference among Impurities as Modifier Elements for Refinement of Eutectic Si in Al-Si Alloys. Materials Transactions, 2015, 56, 1475-1483. | 1.2 | 5 |
| 57 | In Situ Observations of Tensile and Compressive Deformations in Semi Solid Metallic Alloys Using Time-resolved X-ray Imaging. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2017, 103, 668-677. | 0.4 | 5 |
| 58 | X-Ray Imaging of Formation and Growth of Spheroidal Graphite in Ductile Cast Iron. Materials Science Forum, 2018, 925, 104-109. | 0.3 | 5 |
| 59 | Time-resolved and In-situ Observation of γ - β Transformation during Unidirectional Solidification in Fe-C Alloys. ISIJ International, 2020, 60, 930-938. | 1.4 | 5 |
| 60 | Friction Stir Welding of High Phosphorus Weathering Steel Weldabilities, Microstructural Evolution and Mechanical Properties. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 892-901. | 0.4 | 5 |
| 61 | Regular Structure Formation of Hypermonotectic Al-In Alloys. Materials Science Forum, 2010, 649, 131-136. | 0.3 | 4 |
| 62 | Fabrication of Al ₂ O ₃ -YAG Equilibrium Eutectic Composites via Transformation from Fine Al ₂ O ₃ and YAP Powder Mixtures. Materials Transactions, 2012, 53, 1124-1129. | 1.2 | 4 |
| 63 | Influences of temperature and Sn-addition on microstructural evolution of Ag during FSW. Science and Technology of Welding and Joining, 2020, 25, 198-207. | 3.1 | 4 |
| 64 | Microstructural Control and Development of Synthesis Route for Enhancing Performance of Sintered Thermoelectric Oxide Polycrystals via Chemical Solution Process. Funtai Oyobi Fummtsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2010, 57, 224-231. | 0.2 | 3 |
| 65 | Development of In Situ Observation of Deformation in Semi-solid Alloys Using X-Ray Imaging. Keikinzoku/Journal of Japan Institute of Light Metals, 2014, 44, 17-20. | 0.2 | 3 |
| 66 | In situ Observation of Dendrite Growth in Sn-Bi Alloys under Ultrasonic Vibration Using Time-resolved X-ray Imaging. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2016, 102, 170-178. | 0.4 | 3 |
| 67 | Erratum to "Selection of the Massive-like γ - β Transformation due to Nucleation of Metastable γ Phase in Fe-18 Mass%Cr-Ni Alloys with Ni Contents of 8, 11, 14 and 20 Mass%". [ISIJ International, Vol. 59 (2019), No. 3, pp. 459-465]. ISIJ International, 2021, 61, 1053-1053. | 1.4 | 2 |
| 68 | Development in In Situ Observation of Deformation in Semi-solid Alloys Using X-Ray Imaging. , 2014, , 231-243. | | 2 |
| 69 | Characterization of Shear Deformation Based on In-situ Observation of Deformation in Semi-Solid Al-Cu Alloys and Water-Particle Mixture. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 141-148. | 0.4 | 2 |
| 70 | Thermoelectric Properties of (Na _{1-y} My) _x Co ₂ O ₄ (M: K, Sr, Y, Nd, Sm and Yb; y = 0.01-0.35).. ChemInform, 2003, 34, no. | 0.0 | 1 |
| 71 | Crystal growth in the bulk-metallic-glass Zr-based alloys by using the DC + AC levitation method. Journal of Physics: Conference Series, 2009, 144, 012056. | 0.4 | 1 |
| 72 | Direct Observation of Shear Deformation in Semi-solid Alloys Using X-ray Imaging. Materia Japan, 2012, 51, 561-568. | 0.1 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Localization of shear strain and shear band formation induced by deformation in semi-solid Al-Cu alloys. IOP Conference Series: Materials Science and Engineering, 2015, 84, 012078. | 0.6 | 1 |
| 74 | Three-dimensional Observation of Al ₂ O ₃ -GAP Eutectic Structure by X-ray Micro CT. Materia Japan, 2007, 46, 819-819. | 0.1 | 1 |
| 75 | Thermoelectric properties of Na _x Co ₂ O ₄ prepared by the polymerized complex method. , 0, , . | | 0 |
| 76 | SYNTHESIS OF Na _x Co ₂ O ₄ THERMOELECTRIC OXIDE BY THE POLYMERIZED COMPLEX METHOD AND SPS METHODS. , 2005, , 317-320. | | 0 |
| 77 | <i>In Situ</i> Study of the Altering Globule Packing-Density during Semisolid Alloy Deformation. Solid State Phenomena, 0, 192-193, 185-190. | 0.3 | 0 |
| 78 | Advanced Analysis of Solidification by X-ray Imaging. , 2013, , 93-104. | | 0 |
| 79 | In Situ Observation of Solidification Behaviors in Carbon Steels Using Synchrotron X-ray Imaging. Materia Japan, 2014, 53, 467-470. | 0.1 | 0 |
| 80 | Application of a macroscopic model to predict the band segregation induced by shear deformation of semisolid. IOP Conference Series: Materials Science and Engineering, 2015, 84, 012011. | 0.6 | 0 |
| 81 | In situ Observation Using Synchrotron Radiation. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2019, 88, 274-278. | 0.1 | 0 |