

# Kazuyuki Shimizu

## List of Publications by Year in descending order

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36  
papers

597  
citations

566801

15  
h-index

610482

24  
g-index

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docs citations

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times ranked

364  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Assessment of hydrogen embrittlement via image-based techniques in Al–Zn–Mg–Cu aluminum alloys. <i>Acta Materialia</i> , 2019, 176, 96-108.   | 3.8 | 63        |
| 2  | Atomic scale HAADF-STEM study of $\epsilon$ and $\eta$ phases in peak-aged Al–Zn–Mg alloys. <i>Journal of Materials Science</i> , 2018, 53, 4598-4611.  | 1.7 | 62        |
| 3  | Enhanced hydrogen embrittlement of Pd-coated niobium metal membrane detected by in situ small punch test under hydrogen permeation. <i>Journal of Alloys and Compounds</i> , 2007, 446-447, 588-592.              | 2.8 | 56        |
| 4  | Influence of hydrogen on strain localization and fracture behavior in Al–Zn–Mg–Cu aluminum alloys. <i>Acta Materialia</i> , 2018, 159, 332-343.   | 3.8 | 55        |
| 5  | Hydrogen-accelerated spontaneous microcracking in high-strength aluminium alloys. <i>Scientific Reports</i> , 2020, 10, 1998.   | 1.6 | 38        |
| 6  | Cavitation during high-temperature deformation in Al–Mg alloys. <i>Acta Materialia</i> , 2013, 61, 2403-2413.   | 3.8 | 32        |
| 7  | High-energy x-ray nanotomography introducing an apodization Fresnel zone plate objective lens. <i>Review of Scientific Instruments</i> , 2021, 92, 023701.  | 0.6 | 25        |
| 8  | Damage micromechanisms of stress corrosion cracking in Al–Mg alloy with high magnesium content. <i>Corrosion Science</i> , 2021, 184, 109343.   | 3.0 | 25        |
| 9  | In-situ 3D observation of hydrogen-assisted particle damage behavior in 7075 Al alloy by synchrotron X-ray tomography. <i>Acta Materialia</i> , 2022, 227, 117658.  | 3.8 | 24        |
| 10 | Hydrogen partitioning behavior and related hydrogen embrittlement in Al–Zn–Mg alloys. <i>Engineering Fracture Mechanics</i> , 2019, 216, 106503.  | 2.0 | 23        |
| 11 | Application of Dual-Energy K-Edge Subtraction Imaging to Assessment of Heat Treatments in Al–Cu Alloys. <i>Materials Transactions</i> , 2010, 51, 2045-2048.  | 0.4 | 22        |
| 12 | Formation behaviour of blister in cast aluminium alloy. <i>International Journal of Cast Metals Research</i> , 2014, 27, 369-377.   | 0.5 | 22        |
| 13 | Suppressed hydrogen embrittlement of high-strength Al alloys by Mn-rich intermetallic compound particles. <i>Acta Materialia</i> , 2022, 236, 118110.   | 3.8 | 22        |
| 14 | An unreported precipitate orientation relationship in Al–Zn–Mg based alloys. <i>Materials Characterization</i> , 2019, 158, 109958.   | 1.9 | 20        |
| 15 | Hydrogen Trapping in $Mg_{2}Si$ and $Al_{7}FeCu_{2}$ Intermetallic Compounds in Aluminum Alloy: First-Principles Calculations. <i>Materials Transactions</i> , 2020, 61, 1907-1911.                               | 0.4 | 20        |
| 16 | Compression and recovery micro-mechanisms in flexible graphite. <i>Carbon</i> , 2013, 59, 184-191.  | 5.4 | 15        |
| 17 | Local Deformation and Fracture Behavior of High-Strength Aluminum Alloys Under Hydrogen Influence. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 1-19. | 1.1 | 15        |
| 18 | Influence of nanovoids in the hydrogen embrittlement fracture of Al–Zn–Mg–Cu alloys. <i>Materialia</i> , 2020, 11, 100667.  | 1.3 | 12        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Microstructure evolution in a hydrogen charged and aged Al-Zn-Mg alloy. <i>Materialia</i> , 2018, 3, 50-56.  | 1.3 | 11        |
| 20 | The possible transition mechanism for the meta-stable phase in the 7xxx aluminium. <i>Materials Science and Technology</i> , 2020, 36, 1621-1627.  | 0.8 | 8         |
| 21 | Dynamic Observation of FeSiBPCu Alloys for Crystallization via MeV Electron Irradiation. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2014, 78, 364-368.                       | 0.2 | 7         |
| 22 | Evolution Behavior of Hydrogen-Induced Nano Voids in Al-Zn-Mg-Cu Aluminum Alloys under Loading. <i>Materials Transactions</i> , 2018, 59, 1532-1535.   | 0.4 | 6         |
| 23 | The Role of Hydrogen on the Local Fracture Toughness Properties of 7XXX Aluminum Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5368-5381. | 1.1 | 6         |
| 24 | Precipitation structure and mechanical properties on peak-aged Al-Zn-Mg alloys including different with some Zn/Mg ratios. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2017, 67, 162-167. | 0.1 | 3         |
| 25 | Hydrogen desorption behavior in Al-8Zn-1Mg alloy. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2019, 69, 186-193.  | 0.1 | 2         |
| 26 | 3D/4D fracture mechanics evaluation on shear band of aluminum alloys. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2013, 63, 188-195.  | 0.1 | 1         |
| 27 | Neutron Imaging Analysis of Hydrogen Content in Pure Palladium and Aluminum Alloys. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2019, 83, 434-440.                            | 0.2 | 1         |
| 28 | Structural Phase Transformations of Gallium Ion Irradiated SUS304 Steel. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2021, 85, 239-246.                                       | 0.2 | 1         |
| 29 | Influence of hydrogen on stress corrosion cracking behavior in Al-10Mg alloy. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2019, 69, 223-227.  | 0.1 | 0         |
| 30 | Optimization of Mechanical Properties in Aluminum Alloys & via Hydrogen Partitioning Control. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2019, 105, 240-253.                  | 0.1 | 0         |
| 31 | Tomography for Bridging Nano and Macro: Semi-spontaneous Interfacial Debonding. <i>Materia Japan</i> , 2021, 60, 13-18.  | 0.1 | 0         |
| 32 | Assessment of Hydrogen Accumulation Behavior in Al-Zn-Mg Alloy under Strain with Kelvin Force Microscopy. <i>Materials Transactions</i> , 2021, 62, 636-641.   | 0.4 | 0         |
| 33 | OS0801-143 Hydrogen embrittlement in Al-Zn-Mg alloys. <i>The Proceedings of the Materials and Mechanics Conference</i> , 2015, 2015, _OS0801-14-_OS0801-14.  | 0.0 | 0         |
| 34 | Hydrogen partitioning behavior and hydrogen embrittlement in Al-Zn-Mg alloys. <i>The Proceedings of the Materials and Mechanics Conference</i> , 2016, 2016, OS15-02.  | 0.0 | 0         |
| 35 | Size and distribution of micropores and voids in 5052 aluminum alloys during tensile deformation. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2018, 68, 630-634.                          | 0.1 | 0         |
| 36 | Analysis of Hydrogen Content in Pure Palladium via Neutron Radiography and Tomography. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2020, 84, 270-275.                         | 0.2 | 0         |