

Kouji Sakaki

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76
papers

890
citations

17
h-index

27
g-index

82
ext. papers

1,043
ext. citations

4.6
avg, IF

3.92
L-index

| # | Paper | IF | Citations |
|----|---|-----|-----------|
| 76 | Structural degradation behavior of Mg ₂ -Pr Ni ₄ upon hydrogenation. <i>Journal of Alloys and Compounds</i> , 2022 , 912, 165272 | 5.7 | |
| 75 | Displacement of hydrogen position in di-hydride of V-Ti-Cr solid solution alloys. <i>Acta Materialia</i> , 2022 , 118055 | 8.4 | 1 |
| 74 | Suppression of the Phase Coexistence of the fcc-fct Transition in Hafnium-Hydride Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 10969-10974 | 6.4 | 1 |
| 73 | Stability of Zirconium-Substituted Face-Centered Cubic Yttrium Hydride. <i>Inorganic Chemistry</i> , 2021 , 60, 17715-17721 | 5.1 | |
| 72 | Strategy of thermodynamic and kinetic improvements for Mg hydride nanostructured by immiscible transition metals. <i>Journal of Power Sources</i> , 2021 , 494, 229742 | 8.9 | 8 |
| 71 | Zirconium hydride-stabilized yttrium hydride (ZSY): Stabilization of a face-centered cubic YH ₃ phase by Zr substitution. <i>Journal of Alloys and Compounds</i> , 2021 , 851, 156071 | 5.7 | 1 |
| 70 | The average and local structure of TiVCrNbD _x (x=0,2.2,8) from total scattering and neutron spectroscopy. <i>Acta Materialia</i> , 2021 , 205, 116496 | 8.4 | 11 |
| 69 | Face-centered-cubic yttrium trihydride high-pressure phase stabilized at ambient pressures by mechanical milling. <i>Materialia</i> , 2021 , 15, 100956 | 3.2 | 1 |
| 68 | Uncovering the encapsulation effect of reduced graphene oxide sheets on the hydrogen storage properties of palladium nanocubes. <i>Nanoscale</i> , 2021 , 13, 16942-16951 | 7.7 | 2 |
| 67 | Nanostructural Perspective for Destabilization of Mg Hydride Using the Immiscible Transition Metal Mn. <i>Inorganic Chemistry</i> , 2021 , 60, 15024-15030 | 5.1 | 3 |
| 66 | Generating Mechanism of Catalytic Effect for Hydrogen Absorption/Desorption Reactions in NaAlH ₄ ∩TiCl ₃ . <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 8349 | 2.6 | 1 |
| 65 | Tuning the hydrogenation properties of Ti _{1+y} Cr _{2-x} Mn _x laves phase compounds for high pressure metal-hydride compressors. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 36369-36369 | 6.7 | 5 |
| 64 | Hydrogen generation by hydrolysis reaction using magnesium alloys with long period stacking ordered structure. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 35161-35171 | 6.7 | 0 |
| 63 | Unveiling Nanoscale Compositional and Structural Heterogeneities of Highly Textured MgTiH Thin Films. <i>Inorganic Chemistry</i> , 2020 , 59, 6800-6807 | 5.1 | 3 |
| 62 | Metallurgical Synthesis of MgFeSi Hydride: Destabilization of MgFeH Nanostructured in Templated MgSi. <i>Inorganic Chemistry</i> , 2020 , 59, 2758-2764 | 5.1 | 2 |
| 61 | Hydrogen storage properties of Nb-based solid solution alloys with a BCC structure. <i>Journal of Alloys and Compounds</i> , 2020 , 820, 153399 | 5.7 | 9 |
| 60 | Reaction paths via a new transient phase in non-equilibrium hydrogen absorption of LaNi ₂ Co ₃ . <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 21655-21665 | 6.7 | 4 |

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|----|---|-----|----|
| 59 | Hydrogenation Properties of MgCuY with Long Period Stacking Ordered Structure and Formation of Polymorphic ϵ MgH. <i>Inorganic Chemistry</i> , 2020 , 59, 14263-14274 | 5.1 | 1 |
| 58 | Facile Synthesis of LiH-Stabilized Face-Centered-Cubic YH High-Pressure Phase by Ball Milling Process. <i>Inorganic Chemistry</i> , 2019 , 58, 13102-13107 | 5.1 | 5 |
| 57 | Metal hydride actuator for a rescue jack driven by hydrogen desorption. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29310-29318 | 6.7 | 3 |
| 56 | Destabilizing the Dehydrogenation Thermodynamics of Magnesium Hydride by Utilizing the Immiscibility of Mn with Mg. <i>Inorganic Chemistry</i> , 2019 , 58, 14600-14607 | 5.1 | 13 |
| 55 | Interstitial-atom-induced phase transformation upon hydrogenation in vanadium. <i>Journal of Alloys and Compounds</i> , 2018 , 750, 33-41 | 5.7 | 5 |
| 54 | Development of an in situ synchrotron X-ray total scattering setup under pressurized hydrogen gas. <i>Journal of Applied Crystallography</i> , 2018 , 51, 796-801 | 3.8 | 4 |
| 53 | Rescue jack system applying hydrogen-absorbing alloys as a pressure source. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 22438-22446 | 6.7 | 2 |
| 52 | Structural Variation of Self-Organized Mg Hydride Nanoclusters in Immiscible Ti Matrix by Hydrogenation. <i>Inorganic Chemistry</i> , 2018 , 57, 11831-11838 | 5.1 | 11 |
| 51 | Positron Annihilation Spectroscopy (PAS). <i>Neutron Scattering Applications and Techniques</i> , 2016 , 377-402 | | |
| 50 | High-Pressure-Hydrogen-Induced Spin Reconfiguration in GdFe ₂ Observed by ⁵⁷ Fe-Polarized Synchrotron Radiation Mössbauer Spectroscopy with Nuclear Bragg Monochromator. <i>Journal of the Physical Society of Japan</i> , 2016 , 85, 123707 | 1.5 | 1 |
| 49 | Application of metal hydride paper to simple pressure generator for use in soft actuator systems. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 4789-92 | 0.9 | 4 |
| 48 | Compositional Dependence of Hydrogenation Properties in Ti _{1+y} (Fe _{1-x} Mn _x) _{1-y} (0.2 ≤ x ≤ 0.5, 0 ≤ y ≤ 0.08). <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2015 , 79, 112-117 | 0.4 | 2 |
| 47 | Effect of a Quenching Rate on Hydrogen Storage Properties of V _{0.79} Ti _{0.22} Zr _{0.01} . <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2015 , 79, 131-136 | 0.4 | |
| 46 | Observation of Transient Structural Changes on Hydrogen Absorption Process of LaNi _{4.75} Sn _{0.25} by Time Resolved X-Ray Diffraction. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2015 , 79, 124-130 | 0.4 | 3 |
| 45 | Development of Zr _x Ti _{1-x} Mn _{0.8} V _{0.2} Ni _{0.9} M _{0.1} (M=Ni, Al, Fe, Cu) Alloys for a Soft Actuator Using Hydrogen Storage Alloys. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2015 , 79, 257-264 | 0.4 | 2 |
| 44 | Synthesis and structural study of Ti-rich Mg _{1-x} Ti _x hydrides. <i>Journal of Alloys and Compounds</i> , 2014 , 593, 132-136 | 5.7 | 13 |
| 43 | Degradation Mechanism against Hydrogenation Cycles in Mg _{2-x} Pr _x Ni ₄ (x= 0.6 and 1.0). <i>Journal of Physical Chemistry C</i> , 2014 , 118, 6697-6705 | 3.8 | 17 |
| 42 | Reduction and unusual recovery in the reversible hydrogen storage capacity of V _{1-x} Ti _x during hydrogen cycling. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 10546-10551 | 6.7 | 11 |

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|----|--|-----|----|
| 41 | Development of Ti‐Zr‐Mn Based Hydrogen Storage Alloys for a Soft Actuator. <i>Materials Transactions</i> , 2014 , 55, 1168-1174 | 1.3 | 5 |
| 40 | Improving the Cyclic Stability of V‐Ti‐Mn bcc Alloys Using Interstitial Elements. <i>Materials Transactions</i> , 2014 , 55, 1144-1148 | 1.3 | 6 |
| 39 | In situ XRD study of La ₂ Ni ₇ H(x) during hydrogen absorption-desorption. <i>Inorganic Chemistry</i> , 2013 , 52, 10105-11 | 5.1 | 16 |
| 38 | Origin of Degradation in the Reversible Hydrogen Storage Capacity of V _{1-x} Ti _x Alloys from the Atomic Pair Distribution Function Analysis. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 26543-26550 | 3.8 | 36 |
| 37 | In situ synchrotron ⁵⁷ Fe Mössbauer spectroscopy of RFe ₂ (R = Y, Gd) hydrides synthesized under ultra-high-pressure hydrogen. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S264-S267 | 5.7 | 5 |
| 36 | Crystal structure and local structure of Mg _(2-x) Pr _(x) Ni ₄ (x = 0.6 and 1.0) deuteride using in situ neutron total scattering. <i>Inorganic Chemistry</i> , 2013 , 52, 7010-9 | 5.1 | 23 |
| 35 | Identification of Vacancy Formation Sites in LaNi ₅ Cu During Hydrogenation Using in Situ Coincidence Doppler Broadening Technique. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 22238-22244 | 3.8 | 3 |
| 34 | An in situ Mössbauer study using synchrotron radiation. <i>Hyperfine Interactions</i> , 2012 , 204, 139-142 | 0.8 | 2 |
| 33 | Hydrogenation Properties of Ternary Intermetallic Compounds Mg _{2-x} Pr _x Ni ₄ . <i>Materials Transactions</i> , 2012 , 53, 513-517 | 1.3 | 18 |
| 32 | In situ atomic force microscopy observation of hydrogen absorption/desorption by Palladium thin film. <i>Applied Surface Science</i> , 2011 , 258, 1456-1459 | 6.7 | 5 |
| 31 | Hydrogenation properties of Ti _{1-x} Mn _x alloys with a BCC structure containing high and low oxygen concentrations. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 1841-1847 | 5.7 | 23 |
| 30 | Phase Transformation and Lattice-Strain Formation in Ti _{1.0} V _{1.1} Mn _{0.9} during First Absorption and Desorption. <i>Materials Transactions</i> , 2011 , 52, 586-590 | 1.3 | 4 |
| 29 | Hydrogen absorption kinetics of magnesium fiber prepared by vapor deposition. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 14488-14495 | 6.7 | 18 |
| 28 | Synthesis and crystal structure of a Pr ₅ Ni ₁₉ superlattice alloy and its hydrogen absorption-desorption property. <i>Inorganic Chemistry</i> , 2011 , 50, 4548-52 | 5.1 | 26 |
| 27 | Reversible Vacancy Formation and Recovery during Dehydrogenation/Hydrogenation Cycling of Ti-Doped NaAlH ₄ . <i>Journal of Physical Chemistry C</i> , 2010 , 114, 6869-6873 | 3.8 | 20 |
| 26 | Phase transformation and crystal structure of La ₂ Ni ₇ H(x) studied by in situ X-ray diffraction. <i>Inorganic Chemistry</i> , 2010 , 49, 8763-8 | 5.1 | 28 |
| 25 | Development of an energy-domain ⁵⁷ Fe-Mössbauer spectrometer using synchrotron radiation and its application to ultrahigh-pressure studies with a diamond anvil cell. <i>Journal of Synchrotron Radiation</i> , 2009 , 16, 723-9 | 2.4 | 60 |
| 24 | In situ XRD for pseudo Laves phases hydrides highlighting the remained cubic structure. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 3038-3043 | 6.7 | 16 |

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| 23 | The effect of substitutional elements (Al, Co) in LaNi _{4.5} Mg _{0.5} on the lattice defect formation in the initial hydrogenation and dehydrogenation. <i>Journal of Alloys and Compounds</i> , 2009 , 473, 87-93 | 5.7 | 17 |
| 22 | Behavior of vacancy formation and recovery during hydrogenation cycles in LaNi _{4.93} Sn _{0.27} . <i>Journal of Alloys and Compounds</i> , 2009 , 477, 205-211 | 5.7 | 13 |
| 21 | Hydrogenation of CaLi ₂ Mg _x (0 ≤ x ≤ 2) with C14 Laves phase structure. <i>Journal of Alloys and Compounds</i> , 2009 , 482, L18-L21 | 5.7 | 6 |
| 20 | Phase transformation of the La _{0.7} Mg _{0.3} Ni _{2.8} Co _{0.5} -H ₂ system studied by in situ X-ray diffraction. <i>Journal of Alloys and Compounds</i> , 2009 , 485, 174-180 | 5.7 | 18 |
| 19 | Effect of rare earth on lattice size and equilibrium hydrogen pressure for AB ₅ -type MmNi _{3.55} Co _{0.75} Al _{0.30} Mn _{0.40} . <i>Journal of Alloys and Compounds</i> , 2008 , 459, 215-219 | 5.7 | 8 |
| 18 | Investigations on the Formation and Decomposition Behaviors of BaAlH ₅ and Ba ₂ AlH ₇ . <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17423-17426 | 3.8 | 5 |
| 17 | In situ X-ray diffraction under H ₂ of the pseudo-AB ₂ compounds: YNi _{3.5} Al _{0.5} Mg. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2053-2058 | 6.7 | 14 |
| 16 | A preliminary study of some pseudo-AB ₂ compounds: RENi ₄ Mg with RE=La, Ce and Gd. Structural and hydrogen sorption properties. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2422-2428 | 6.7 | 45 |
| 15 | Lattice expansion for MmNi _{4.30-x} CoxAl _{0.30} Mn _{0.40} (x=0,0.75) studied by in situ X-ray diffraction. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 3435-3441 | 6.7 | 7 |
| 14 | Positron lifetime study on the degradation of LaNi ₅ and LaNi _{4.8} Sn _{0.2} during hydrogen absorption-desorption cycling. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 3510-3513 | | 5 |
| 13 | Crystal structure and hydrogen storage properties of LaMgNiCo alloy with superstructure. <i>Scripta Materialia</i> , 2007 , 57, 545-548 | 5.6 | 40 |
| 12 | Formation of lattice strain in MmNi _{4.30-x} CoxAl _{0.30} Mn _{0.40} MmNi _{4.30-x} CoxAl _{0.30} Mn _{0.40} (x=0,0.75) during hydrogenation. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 4202-4208 | 6.7 | 6 |
| 11 | The effect of hydrogen on vacancy generation in iron by plastic deformation. <i>Scripta Materialia</i> , 2006 , 55, 1031-1034 | 5.6 | 110 |
| 10 | The effect of the hydrogenation process on the production of lattice defects in Pd. <i>Journal of Alloys and Compounds</i> , 2006 , 414, 204-206 | 5.7 | 7 |
| 9 | Lattice Defect Behavior of LaNi _{4.97} Sn _{0.27} during Hydrogenation Cycles. <i>Materials Transactions</i> , 2006 , 47, 1875-1877 | 1.3 | 1 |
| 8 | The effect of hydrogenated phase transformation on hydrogen-related vacancy formation in Pd _{1-x} Ag _x alloy. <i>Acta Materialia</i> , 2006 , 54, 4641-4645 | 8.4 | 7 |
| 7 | The observation of the lattice defect formation during the hydrogenation and dehydrogenation in La(Ni,Sn) ₅ by in-situ positron lifetime measurement. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 885, 1 | | 1 |
| 6 | Sub-nano and Nano-structures of Hydrides of LaNi ₅ and its related Intermetallics. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 842, 178 | | |

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| 5 | First-principles calculations of positron lifetimes of lattice defects induced by hydrogen absorption. <i>Solid State Ionics</i> , 2004 , 172, 149-153 | 3-3 | 3 |
| 4 | Theoretical calculation of positron lifetimes for LaNi ₅ H system. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 186-190 | 5-7 | 19 |
| 3 | Hydrogen-Induced Vacancy Generation Phenomenon in Pure Pd. <i>Materials Transactions</i> , 2002 , 43, 2652-2655 | 2-5 | 23 |
| 2 | Recovery of Hydrogen Induced Defects and Thermal Desorption of Residual Hydrogen in LaNi ₅ . <i>Materials Transactions</i> , 2002 , 43, 1494-1497 | 1-3 | 18 |
| 1 | Positron annihilation study of lattice defects induced by hydrogen absorption in some hydrogen storage materials. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 125-131 | 5-7 | 53 |