

# Kouji Sakaki

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/9470250/kouji-sakaki-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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	The effect of hydrogen on vacancy generation in iron by plastic deformation. <i>Scripta Materialia</i> , <b>2006</b> , 55, 1031-1034	5.6	110
75	Development of an energy-domain $^{57}\text{Fe}$ -Mössbauer spectrometer using synchrotron radiation and its application to ultrahigh-pressure studies with a diamond anvil cell. <i>Journal of Synchrotron Radiation</i> , <b>2009</b> , 16, 723-9	2.4	60
74	Positron annihilation study of lattice defects induced by hydrogen absorption in some hydrogen storage materials. <i>Journal of Alloys and Compounds</i> , <b>2002</b> , 330-332, 125-131	5.7	53
73	A preliminary study of some pseudo-AB <sub>2</sub> compounds: RENi <sub>4</sub> Mg with RE=La, Ce and Gd. Structural and hydrogen sorption properties. <i>International Journal of Hydrogen Energy</i> , <b>2007</b> , 32, 2422-2428	6.7	45
72	Crystal structure and hydrogen storage properties of LaMgNiCo alloy with superstructure. <i>Scripta Materialia</i> , <b>2007</b> , 57, 545-548	5.6	40
71	Origin of Degradation in the Reversible Hydrogen Storage Capacity of V <sub>1-x</sub> Ti <sub>x</sub> Alloys from the Atomic Pair Distribution Function Analysis. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 26543-26550	3.8	36
70	Phase transformation and crystal structure of La <sub>2</sub> Ni <sub>7</sub> H <sub>x</sub> studied by in situ X-ray diffraction. <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 8763-8	5.1	28
69	Synthesis and crystal structure of a Pr <sub>5</sub> Ni <sub>19</sub> superlattice alloy and its hydrogen absorption-desorption property. <i>Inorganic Chemistry</i> , <b>2011</b> , 50, 4548-52	5.1	26
68	Crystal structure and local structure of Mg <sub>(2-x)</sub> Pr <sub>(x)</sub> Ni <sub>4</sub> (x = 0.6 and 1.0) deuteride using in situ neutron total scattering. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 7010-9	5.1	23
67	Hydrogenation properties of Ti <sub>1-x</sub> Mn <sub>x</sub> alloys with a BCC structure containing high and low oxygen concentrations. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 1841-1847	5.7	23
66	Hydrogen-Induced Vacancy Generation Phenomenon in Pure Pd. <i>Materials Transactions</i> , <b>2002</b> , 43, 2652-2655		23
65	Reversible Vacancy Formation and Recovery during Dehydrogenation/Hydrogenation Cycling of Ti-Doped NaAlH <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 6869-6873	3.8	20
64	Theoretical calculation of positron lifetimes for LaNi <sub>5</sub> H system. <i>Journal of Alloys and Compounds</i> , <b>2003</b> , 356-357, 186-190	5.7	19
63	Hydrogen absorption kinetics of magnesium fiber prepared by vapor deposition. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14488-14495	6.7	18
62	Hydrogenation Properties of Ternary Intermetallic Compounds Mg <sub>2-x</sub> Pr <sub>x</sub> Ni <sub>4</sub> . <i>Materials Transactions</i> , <b>2012</b> , 53, 513-517	1.3	18
61	Phase transformation of the La <sub>0.7</sub> Mg <sub>0.3</sub> Ni <sub>2.8</sub> Co <sub>0.5</sub> -H <sub>2</sub> system studied by in situ X-ray diffraction. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 485, 174-180	5.7	18
60	Recovery of Hydrogen Induced Defects and Thermal Desorption of Residual Hydrogen in LaNi <sub>5</sub> . <i>Materials Transactions</i> , <b>2002</b> , 43, 1494-1497	1.3	18

59	Degradation Mechanism against Hydrogenation Cycles in Mg <sub>2</sub> Pr <sub>x</sub> Ni <sub>4</sub> (x= 0.6 and 1.0). <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 6697-6705	3.8	17
58	The effect of substitutional elements (Al, Co) in LaNi <sub>4.5</sub> M <sub>0.5</sub> on the lattice defect formation in the initial hydrogenation and dehydrogenation. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 473, 87-93	5.7	17
57	In situ XRD study of La <sub>2</sub> Ni <sub>7</sub> H(x) during hydrogen absorption-desorption. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 10105-11	5.1	16
56	In situ XRD for pseudo Laves phases hydrides highlighting the remained cubic structure. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 3038-3043	6.7	16
55	In situ X-ray diffraction under H <sub>2</sub> of the pseudo-AB <sub>2</sub> compounds: YNi <sub>3.5</sub> Al <sub>0.5</sub> Mg. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 2053-2058	6.7	14
54	Destabilizing the Dehydrogenation Thermodynamics of Magnesium Hydride by Utilizing the Immiscibility of Mn with Mg. <i>Inorganic Chemistry</i> , <b>2019</b> , 58, 14600-14607	5.1	13
53	Synthesis and structural study of Ti-rich Mg <sub>3</sub> Ti hydrides. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 593, 132-136	5.7	13
52	Behavior of vacancy formation and recovery during hydrogenation cycles in LaNi <sub>4.93</sub> Sn <sub>0.27</sub> . <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 477, 205-211	5.7	13
51	Reduction and unusual recovery in the reversible hydrogen storage capacity of V <sub>1-x</sub> Ti <sub>x</sub> during hydrogen cycling. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 10546-10551	6.7	11
50	The average and local structure of TiV <sub>1-x</sub> CrNb <sub>x</sub> (x=0,2,2,8) from total scattering and neutron spectroscopy. <i>Acta Materialia</i> , <b>2021</b> , 205, 116496	8.4	11
49	Structural Variation of Self-Organized Mg Hydride Nanoclusters in Immiscible Ti Matrix by Hydrogenation. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 11831-11838	5.1	11
48	Hydrogen storage properties of Nb-based solid solution alloys with a BCC structure. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 820, 153399	5.7	9
47	Effect of rare earth on lattice size and equilibrium hydrogen pressure for AB <sub>5</sub> -type MmNi <sub>3.55</sub> Co <sub>0.75</sub> Al <sub>0.30</sub> Mn <sub>0.40</sub> . <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 459, 215-219	5.7	8
46	Strategy of thermodynamic and kinetic improvements for Mg hydride nanostructured by immiscible transition metals. <i>Journal of Power Sources</i> , <b>2021</b> , 494, 229742	8.9	8
45	Lattice expansion for MmNi <sub>4.30-x</sub> CoxAl <sub>0.30</sub> Mn <sub>0.40</sub> (x=0,0.75) studied by in situ X-ray diffraction. <i>International Journal of Hydrogen Energy</i> , <b>2007</b> , 32, 3435-3441	6.7	7
44	The effect of the hydrogenation process on the production of lattice defects in Pd. <i>Journal of Alloys and Compounds</i> , <b>2006</b> , 414, 204-206	5.7	7
43	The effect of hydrogenated phase transformation on hydrogen-related vacancy formation in Pd <sub>1-x</sub> Ag <sub>x</sub> alloy. <i>Acta Materialia</i> , <b>2006</b> , 54, 4641-4645	8.4	7
42	Improving the Cyclic Stability of V-Ti-Mn bcc Alloys Using Interstitial Elements. <i>Materials Transactions</i> , <b>2014</b> , 55, 1144-1148	1.3	6

41	Hydrogenation of $\text{CaLi}_2\text{Mg}_x$ ( $0 \leq x \leq 2$ ) with C14 Laves phase structure. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 482, L18-L21	5.7	6
40	Formation of lattice strain in $\text{MmNi}_4.30\text{-xCoxAl}_0.30\text{Mn}_0.40$ ( $x=0,0.75$ ) during hydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2007</b> , 32, 4202-4208	6.7	6
39	Facile Synthesis of LiH-Stabilized Face-Centered-Cubic YH High-Pressure Phase by Ball Milling Process. <i>Inorganic Chemistry</i> , <b>2019</b> , 58, 13102-13107	5.1	5
38	Interstitial-atom-induced phase transformation upon hydrogenation in vanadium. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 750, 33-41	5.7	5
37	Development of Ti–Zr–Mn Based Hydrogen Storage Alloys for a Soft Actuator. <i>Materials Transactions</i> , <b>2014</b> , 55, 1168-1174	1.3	5
36	In situ synchrotron $^{57}\text{Fe}$ Mössbauer spectroscopy of $\text{RFe}_2$ ( $\text{R} = \text{Y, Gd}$ ) hydrides synthesized under ultra-high-pressure hydrogen. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 580, S264-S267	5.7	5
35	In situ atomic force microscopy observation of hydrogen absorption/desorption by Palladium thin film. <i>Applied Surface Science</i> , <b>2011</b> , 258, 1456-1459	6.7	5
34	Investigations on the Formation and Decomposition Behaviors of $\text{BaAlH}_5$ and $\text{Ba}_2\text{AlH}_7$ . <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 17423-17426	3.8	5
33	Positron lifetime study on the degradation of $\text{LaNi}_5$ and $\text{LaNi}_4.8\text{Sn}_0.2$ during hydrogen absorption-desorption cycling. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2007</b> , 4, 3510-3513		5
32	Tuning the hydrogenation properties of $\text{Ti}_{1+y}\text{Cr}_2\text{-xMn}_x$ laves phase compounds for high pressure metal-hydride compressors. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 36369-36369	6.7	5
31	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> , <b>2015</b> , 2015, 4789-92	0.9	4
30	Phase Transformation and Lattice-Strain Formation in $\text{Ti}_{1.0}\text{V}_{1.1}\text{Mn}_{0.9}$ during First Absorption and Desorption. <i>Materials Transactions</i> , <b>2011</b> , 52, 586-590	1.3	4
29	Reaction paths via a new transient phase in non-equilibrium hydrogen absorption of $\text{LaNi}_2\text{Co}_3$ . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 21655-21665	6.7	4
28	Development of an in situ synchrotron X-ray total scattering setup under pressurized hydrogen gas. <i>Journal of Applied Crystallography</i> , <b>2018</b> , 51, 796-801	3.8	4
27	Unveiling Nanoscale Compositional and Structural Heterogeneities of Highly Textured $\text{MgTiH}$ Thin Films. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 6800-6807	5.1	3
26	Metal hydride actuator for a rescue jack driven by hydrogen desorption. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 29310-29318	6.7	3
25	Observation of Transient Structural Changes on Hydrogen Absorption Process of $\text{LaNi}_{4.75}\text{Sn}_{0.25}$ by Time Resolved X-Ray Diffraction. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>2015</b> , 79, 124-130	0.4	3
24	Identification of Vacancy Formation Sites in $\text{LaNi}_5\text{Cu}$ During Hydrogenation Using in Situ Coincidence Doppler Broadening Technique. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 22238-22244	3.8	3

23	First-principles calculations of positron lifetimes of lattice defects induced by hydrogen absorption. <i>Solid State Ionics</i> , <b>2004</b> , 172, 149-153	3.3	3
22	Nanostructural Perspective for Destabilization of Mg Hydride Using the Immiscible Transition Metal Mn. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 15024-15030	5.1	3
21	Metallurgical Synthesis of MgFeSi Hydride: Destabilization of MgFeH Nanostructured in Templated MgSi. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 2758-2764	5.1	2
20	Compositional Dependence of Hydrogenation Properties in $Ti_{1+y}(Fe_{1-x}Mn_x)_{1-y}$ ( $0.2 \leq x \leq 0.5$ , $0 \leq y \leq 0.08$ ). <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , <b>2015</b> , 79, 112-117	0.4	2
19	Development of $Zr_xTi_{1-x}Mn_{0.8}V_{0.2}Ni_{0.9}M_{0.1}$ (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> , <b>2015</b> , 79, 257-264	0.4	2
18	An in situ Mössbauer study using synchrotron radiation. <i>Hyperfine Interactions</i> , <b>2012</b> , 204, 139-142	0.8	2
17	Uncovering the encapsulation effect of reduced graphene oxide sheets on the hydrogen storage properties of palladium nanocubes. <i>Nanoscale</i> , <b>2021</b> , 13, 16942-16951	7.7	2
16	Rescue jack system applying hydrogen-absorbing alloys as a pressure source. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 22438-22446	6.7	2
15	Lattice Defect Behavior of $LaNi_{4.97}Sn_{0.27}$ during Hydrogenation Cycles. <i>Materials Transactions</i> , <b>2006</b> , 47, 1875-1877	1.3	1
14	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> , <b>2005</b> , 885, 1		1
13	Suppression of the Phase Coexistence of the fcc-fct Transition in Hafnium-Hydride Thin Films. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 10969-10974	6.4	1
12	Hydrogenation Properties of MgCuY with Long Period Stacking Ordered Structure and Formation of Polymorphic $\epsilon$ MgH. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 14263-14274	5.1	1
11	High-Pressure-Hydrogen-Induced Spin Reconfiguration in GdFe <sub>2</sub> Observed by <sup>57</sup> Fe-Polarized Synchrotron Radiation Mössbauer Spectroscopy with Nuclear Bragg Monochromator. <i>Journal of the Physical Society of Japan</i> , <b>2016</b> , 85, 123707	1.5	1
10	Zirconium hydride-stabilized yttrium hydride (ZSY): Stabilization of a face-centered cubic YH <sub>3</sub> phase by Zr substitution. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 851, 156071	5.7	1
9	Face-centered-cubic yttrium trihydride high-pressure phase stabilized at ambient pressures by mechanical milling. <i>Materialia</i> , <b>2021</b> , 15, 100956	3.2	1
8	Generating Mechanism of Catalytic Effect for Hydrogen Absorption/Desorption Reactions in NaAlH <sub>4</sub> ·TiCl <sub>3</sub> . <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 8349	2.6	1
7	Displacement of hydrogen position in di-hydride of V-Ti-Cr solid solution alloys. <i>Acta Materialia</i> , <b>2022</b> , 118055	8.4	1
6	Hydrogen generation by hydrolysis reaction using magnesium alloys with long period stacking ordered structure. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 35161-35171	6.7	0

- 5 Effect of a Quenching Rate on Hydrogen Storage Properties of V<sub>0.79</sub>Ti<sub>0.2</sub>Zr<sub>0.01</sub>. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2015**, 79, 131-136 0.4
- 4 Sub-nano and Nano-structures of Hydrides of LaNi<sub>5</sub> and its related Intermetallics. *Materials Research Society Symposia Proceedings*, **2004**, 842, 178
- 3 Stability of Zirconium-Substituted Face-Centered Cubic Yttrium Hydride. *Inorganic Chemistry*, **2021**, 60, 17715-17721 5.1
- 2 Positron Annihilation Spectroscopy (PAS). *Neutron Scattering Applications and Techniques*, **2016**, 377-402
- 1 Structural degradation behavior of Mg<sub>2</sub>-Pr Ni<sub>4</sub> upon hydrogenation. *Journal of Alloys and Compounds*, **2022**, 912, 165272 5.7