Seiji Takeda

List of Publications by Year
in descending order

56 papers	2,668 citations	236925 25 h-index	214800 47 g-index
60 all docs	60 docs citations	60 times ranked	3385 citing authors

#	Article	IF	Citations
1	Visualizing Progressive Atomic Change in the Metal Surface Structure Made by Ultrafast Electronic Interactions in an Ambient Environment. Angewandte Chemie, 2019, 131, 16174-16178.	2.0	1
2	Visualizing Progressive Atomic Change in the Metal Surface Structure Made by Ultrafast Electronic Interactions in an Ambient Environment. Angewandte Chemie - International Edition, 2019, 58, 16028-16032.	13.8	2
3	Rational Method of Monitoring Molecular Transformations on Metal-Oxide Nanowire Surfaces. Nano Letters, 2019, 19, 2443-2449.	9.1	21
4	Reversible gasâ€“solid reaction in an electronically-stimulated palladium nanogap. Nanoscale, 2019, 11, 8715-8717.	5.6	3
5	Oxidation and hydrogenation of Pd: suppression of oxidation by prolonged H2exposure. RSC Advances, 2019, 9, 9113-9116.	3.6	1
6	Roles of Water and H₂ in CO Oxidation Reaction on Gold Catalysts. Journal of Physical Chemistry C, 2018, 122, 9523-9530.	3.1	25
7	Phase-Locked Transmission Electron Microscopy for Detecting Dynamic Responses of Heterogeneous Materials and Electrochemical Devices under an Alternating Electric Potential. Microscopy and Microanalysis, 2018, 24, 1856-1857.	0.4	0
8	Self-activated surface dynamics in gold catalysts under reaction environments. Nature Communications, 2018, 9, 2060.	12.8	38
9	Impact of the electron beam on the thermal stability of gold nanorods studied by environmental transmission electron microscopy. Ultramicroscopy, 2018, 193, 97-103.	1.9	35
10	Detecting dynamic responses of materials and devices under an alternating electric potential by phase-locked transmission electron microscopy. Ultramicroscopy, 2017, 181, 27-41.	1.9	8
11	Reaction Mechanism of the Low-Temperature Waterâ€“Gas Shift Reaction on Au/TiO₂ Catalysts. Journal of Physical Chemistry C, 2017, 121, 12178-12187.	3.1	60
12	Electron beam induced etching of carbon nanotubes enhanced by secondary electrons in oxygen. Nanotechnology, 2017, 28, 195301.	2.6	8
13	Recent Advancement of Environmental TEM for Material Process Characterization. Microscopy and Microanalysis, 2016, 22, 716-717.	0.4	0
14	Revealing the heterogeneous contamination process in metal nanoparticulate catalysts in CO gas without purification by<i>in situ</i>environmental transmission electron microscopy. Microscopy (Oxford, England), 2016, 65, 522-526.	1.5	3
15	Environmental transmission electron microscopy for catalyst materials using a spherical aberration corrector. Ultramicroscopy, 2015, 151, 178-190.	1.9	47
16	A Study on the Mechanism for H₂ Dissociation on Au/TiO₂ Catalysts. Journal of Physical Chemistry C, 2014, 118, 1611-1617.	3.1	69
17	Oxidation and reduction processes of platinum nanoparticles observed at the atomic scale by environmental transmission electron microscopy. Nanoscale, 2014, 6, 13113-13118.	5.6	43
18	Elucidation of the origin of grown-in defects in carbon nanotubes. Carbon, 2014, 70, 266-272.	10.3	11

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19	Structures and stabilities of gold oxide films on gold surfaces in O2 atmosphere. Surface Science, 2014, 628, 41-49.	1.9	4
20	Direct O₂ Activation on Gold/Metal Oxide Catalysts through a Unique Double Linear Oï£¿Auï£¿O Structure. ChemCatChem, 2013, 5, 2217-2222.	3.7	34
21	WGS Catalysis and In Situ Studies of CoO_{1â€“<i>x</i>}, PtCo_{<i>n</i>}/Co₃O₄, and Pt_{<i>m</i>}Co_{<i>m</i>â€²}/CoO_{1â€“<i>x</i>} Nanorod Catalysts. Journal of the American Chemical Society, 2013, 135, 8283-8293.	13.7	161
22	Restructuring Transition Metal Oxide Nanorods for 100% Selectivity in Reduction of Nitric Oxide with Carbon Monoxide. Nano Letters, 2013, 13, 3310-3314.	9.1	71
23	Stepwise Displacement of Catalytically Active Gold Nanoparticles on Cerium Oxide. Nano Letters, 2013, 13, 3073-3077.	9.1	61
24	Atomic-resolution environmental TEM for quantitative<i>in-situ</i>microscopy in materials science. Microscopy (Oxford, England), 2013, 62, 193-203.	1.5	44
25	Visualizing Gas Molecules Interacting with Supported Nanoparticulate Catalysts at Reaction Conditions. Science, 2012, 335, 317-319.	12.6	395
26	Fundamental Strategy for Creating VLS Grown TiO₂ Single Crystalline Nanowires. Journal of Physical Chemistry C, 2012, 116, 24367-24372.	3.1	28
27	Theoretical Study of Atomic Oxygen on Gold Surface by HÃ¼ckel Theory and DFT Calculations. Journal of Physical Chemistry A, 2012, 116, 9568-9573.	2.5	32
28	In situ structural analysis of crystalline Feâ€“Moâ€“C nanoparticle catalysts during the growth of carbon nanotubes. Micron, 2012, 43, 1176-1180.	2.2	13
29	Intrinsic Catalytic Structure of Gold Nanoparticles Supported on TiO₂. Angewandte Chemie - International Edition, 2012, 51, 7729-7733.	13.8	139
30	A theoretical study of CO adsorption on gold by HÃ¼ckel theory and density functional theory calculations. Journal of Computational Chemistry, 2011, 32, 3276-3282.	3.3	13
31	Systematic Morphology Changes of Gold Nanoparticles Supported on CeO₂ during CO Oxidation. Angewandte Chemie - International Edition, 2011, 50, 10157-10160.	13.8	156
32	Temperature-Dependent Change in Shape of Platinum Nanoparticles Supported on CeO₂during Catalytic Reactions. Applied Physics Express, 2011, 4, 065001.	2.4	56
33	Influence of the preparation methods for Pt/CeO2 and Au/CeO2 catalysts in CO oxidation. Studies in Surface Science and Catalysis, 2010, 175, 843-847.	1.5	24
34	Structure and stability of Au rods on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu by first-principles calculations. Physical Review B, 2009, 80, .	3.2	25
35	Atomic-Scale Analysis on the Role of Molybdenum in Iron-Catalyzed Carbon Nanotube Growth. Nano Letters, 2009, 9, 3810-3815.	9.1	82
36	Transformation of a SiC nanowire into a carbon nanotube. Nanoscale, 2009, 1, 344.	5.6	23

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37	Structural transformation of grains and grain boundaries with introducing boron atoms into CoPtCr magnetic layer investigated by ultrasoft pseudopotential calculation and transmission electron microscopy analysis. Journal of Applied Physics, 2009, 105, 063530.	2.5	0
38	Atomic-Scale In-situ Observation of Carbon Nanotube Growth from Solid State Iron Carbide Nanoparticles. Nano Letters, 2008, 8, 2082-2086.	9.1	503
39	In Situ Observation of Nucleation and Growth of Carbon Nanotubes from Iron Carbide Nanoparticles. Materials Research Society Symposia Proceedings, 2008, 1142, 20201.	0.1	0
40	Environmental Transmission Electron Microscopy Observations of Swinging and Rotational Growth of Carbon Nanotubes. Japanese Journal of Applied Physics, 2007, 46, L917.	1.5	23
41	Transmission Electron Microscopy Study on the Surface Properties of CNTs and Fullerites Exposed to CF4 Plasma. Materials Research Society Symposia Proceedings, 2007, 1018, 1.	0.1	0
42	Junctions of Carbon Nanotubes and Silicon Nanowires Synthesized by ethanol-Co Chemical Vapor Deposition. Materials Research Society Symposia Proceedings, 2006, 963, 1.	0.1	0
43	High-resolution Electron Microscopy Observations of a Twinned Si Nanooarticle: Continuous Chance of Image with Tilt. Materia Japan, 2006, 45, 840-840.	0.1	0
44	Chains of crystalline-Si nanospheres: growth and properties. E-Journal of Surface Science and Nanotechnology, 2005, 3, 131-140.	0.4	23
45	Nucleation and growth processes of silicon nanowires. Materials Research Society Symposia Proceedings, 2004, 832, 353.	0.1	0
46	Misleading fringes in TEM images and diffraction patterns of Si nanocrystallites. Crystal Research and Technology, 2003, 38, 1082-1086.	1.3	31
47	Formation and Properties of Silicon/Silicide/Oxide Nanochains. Materials Research Society Symposia Proceedings, 2003, 789, 69.	0.1	0
48	Infusing metal into self-organized semiconductor nanostructures. Applied Physics Letters, 2003, 83, 1202-1203.	3.3	18
49	Analysis of polarization by means of polarized cathodoluminescence spectroscopy in a TEM. Journal of Electron Microscopy, 2002, 51, 281-290.	0.9	17
50	<I>Ab-initio</I> Calculation of Si-K and Si-L ELNES Edges in an Extended Inactive Defect Model of Crystalline Silicon. Materials Transactions, 2002, 43, 1430-1434.	1.2	11
51	Elemental process of amorphization induced by electron irradiation in Si. Physical Review B, 2002, 65, .	3.2	27
52	Amorphization and its Elemental Process Induced by Electron Irradiation in Si.. Nihon Kessho Gakkaishi, 2002, 44, 213-224.	0.0	0
53	Growth Mechanism of Chains of Silicon Nanocrystallites. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	1
54	Self-organized chain of crystalline-silicon nanospheres. Applied Physics Letters, 1998, 73, 3144-3146.	3.3	69

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55	An Introduction to the Crystallographre's World. Introduction of Diffraction Contrast in Transmission Electron Microscopy.. Nihon Kessho Gakkaishi, 1997, 39, 337-346.	0.0	0
56	An Atomic Model of Electron-Irradiation-Induced Defects on {113} in Si. Japanese Journal of Applied Physics, 1991, 30, L639-L642.	1.5	140