Hongsen Wang

List of Publications by Year in Descending Order

31 papers	2,985 citations	21 h-index	32 g-index
32 ext. papers	3,419 ext. citations	11.2 avg, IF	5.22 L-index

#	Paper	IF	Citations
31	New insights into methanol and formic acid electro-oxidation on Pt: Simultaneous DEMS and ATR-SEIRAS study under well-defined flow conditions and simulations of CO spectra.. *Journal of Chemical Physics*, **2022**, 156, 034703	3.9	1
30	Electrocatalysis in Alkaline Media and Alkaline Membrane-Based Energy Technologies.. *Chemical Reviews*, **2022**,	68.1	25
29	Designing Synergistic Electrocatalysts for H2 Oxidation and Evolution Reactions in Alkaline Media. *Journal of Physical Chemistry C*, **2021**, 125, 7188-7203	3.8	3
28	Methanol Oxidation at Platinum in Alkaline Media: A Study of the Effects of Hydroxide Concentration and of Mass Transport. *ChemPhysChem*, **2021**, 22, 1397-1406	3.2	2
27	Operando Methods in Electrocatalysis. *ACS Catalysis*, **2021**, 11, 1136-1178	13.1	49
26	A channel flow cell with double disk electrodes for oxygen electroreduction study at elevated temperatures and pressures: Theory. *Journal of Electroanalytical Chemistry*, **2021**, 896, 115251	4.1	0
25	Multifunctional Electrocatalysts: RuM (M = Co, Ni, Fe) for Alkaline Fuel Cells and Electrolyzers. *ACS Catalysis*, **2020**, 10, 4608-4616	13.1	40
24	Single-phase Ru1MnxCoyO2 nanoparticles as highly effective oxygen reduction electrocatalysts in alkaline media with enhanced stability and fuel-tolerance. *Applied Catalysis B: Environmental*, **2020**, 277, 119149	21.8	9
23	Methanol Oxidation Using Ternary Ordered Intermetallic Electrocatalysts: A DEMS Study. *ACS Catalysis*, **2020**, 10, 770-776	13.1	20
22	Rh and Rh Alloy Nanoparticles as Highly Active H2 Oxidation Catalysts for Alkaline Fuel Cells. *ACS Catalysis*, **2019**, 9, 5057-5062	13.1	30
21	In Situ X-ray Absorption Spectroscopy of a Synergistic Co-Mn Oxide Catalyst for the Oxygen Reduction Reaction. *Journal of the American Chemical Society*, **2019**, 141, 1463-1466	16.4	78
20	IrPdRu/C as H Oxidation Catalysts for Alkaline Fuel Cells. *Journal of the American Chemical Society*, **2017**, 139, 6807-6810	16.4	77
19	The Sodium-Oxygen/Carbon Dioxide Electrochemical Cell. *ChemSusChem*, **2016**, 9, 1600-6	8.3	13
18	Origin of Multiple Peaks in the Potentiodynamic Oxidation of CO Adlayers on Pt and Ru-Modified Pt Electrodes. *Journal of Physical Chemistry Letters*, **2015**, 6, 1899-906	6.4	33
17	Water oxidation catalysis by Co(II) impurities in Co(III)4O4 cubanes. *Journal of the American Chemical Society*, **2014**, 136, 17681-8	16.4	138
16	A rechargeable NaCO2/O2 battery enabled by stable nanoparticle hybrid electrolytes. *Journal of Materials Chemistry A*, **2014**, 2, 17723-17729	13	79
15	An electrochemical quartz crystal microbalance study of a prospective alkaline anion exchange membrane material for fuel cells: anion exchange dynamics and membrane swelling. *Journal of the American Chemical Society*, **2014**, 136, 5309-22	16.4	34

14	CO_2 and O_2 evolution at high voltage cathode materials of Li-ion batteries: a differential electrochemical mass spectrometry study. *Analytical Chemistry*, **2014**, 86, 6197-201	7.8	72
13	An exchangeable-tip scanning probe instrument for the analysis of combinatorial libraries of electrocatalysts. *Review of Scientific Instruments*, **2013**, 84, 024101	1.7	8
12	Structurally ordered intermetallic platinum-cobalt core-shell nanoparticles with enhanced activity and stability as oxygen reduction electrocatalysts. *Nature Materials*, **2013**, 12, 81-7	27	1467
11	Mechanistic Studies of Formate Oxidation on Platinum in Alkaline Medium. *Journal of Physical Chemistry C*, **2012**, 116, 5810-5820	3.8	69
10	New Insights into the Mechanism and Kinetics of Adsorbed CO Electrooxidation on Platinum: Online Mass Spectrometry and Kinetic Monte Carlo Simulation Studies. *Journal of Physical Chemistry C*, **2012**, 116, 11040-11053	3.8	33
9	Facile Synthesis of Carbon-Supported Pd_3Co Core-Shell Nanoparticles as Oxygen Reduction Electrocatalysts and Their Enhanced Activity and Stability with Monolayer Pt Decoration. *Chemistry of Materials*, **2012**, 24, 2274-2281	9.6	154
8	Electrocatalysis of Direct Alcohol Fuel Cells: Quantitative DEMS Studies. *Structure and Bonding*, **2011**, 33-83	0.9	18
7	A Mechanistic Differential Electrochemical Mass Spectrometry (DEMS) and in situ Fourier Transform Infrared Investigation of Dimethoxymethane Electro-Oxidation at Platinum. *Journal of Physical Chemistry C*, **2011**, 115, 13293-13302	3.8	8
6	Highly stable and CO-tolerant Pt/Ti0.7W0.3O2 electrocatalyst for proton-exchange membrane fuel cells. *Journal of the American Chemical Society*, **2010**, 132, 10218-20	16.4	113
5	New double-band-electrode channel flow differential electrochemical mass spectrometry cell: application for detecting product formation during methanol electrooxidation. *Analytical Chemistry* , **2010**, 82, 4319-24	7.8	36
4	Methanol electrooxidation on PtRu bulk alloys and carbon-supported PtRu nanoparticle catalysts: a quantitative DEMS study. *Langmuir*, **2009**, 25, 7725-35	4	53
3	Electrocatalytic mechanism and kinetics of SOMs oxidation on ordered PtPb and PtBi intermetallic compounds: DEMS and FTIRS study. *Physical Chemistry Chemical Physics*, **2008**, 10, 3739-51	3.6	58
2	DEMS Study on Methanol Oxidation at Poly- and Monocrystalline Platinum Electrodes: The Effect of Anion, Temperature, Surface Structure, Ru Adatom, and Potential. *Journal of Physical Chemistry C*, **2007**, 111, 7038-7048	3.8	72
1	Methanol oxidation on Pt, PtRu, and colloidal Pt electrocatalysts: a DEMS study of product formation. *Journal of Electroanalytical Chemistry*, **2001**, 509, 163-169	4.1	191