

# R R Rao

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9578250/publications.pdf>

Version: 2024-02-01

23  
papers

2,653  
citations

430874

18  
h-index

642732

23  
g-index

24  
all docs

24  
docs citations

24  
times ranked

3611  
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskites in catalysis and electrocatalysis. <i>Science</i> , 2017, 358, 751-756.	12.6	1,138
2	Towards identifying the active sites on RuO <sub>2</sub> (110) in catalyzing oxygen evolution. <i>Energy and Environmental Science</i> , 2017, 10, 2626-2637.	30.8	278
3	An <i>In Situ</i> Surface-Enhanced Infrared Absorption Spectroscopy Study of Electrochemical CO <sub>2</sub> Reduction: Selectivity Dependence on Surface C-Bound and O-Bound Reaction Intermediates. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5951-5963.	3.1	172
4	Operando identification of site-dependent water oxidation activity on ruthenium dioxide single-crystal surfaces. <i>Nature Catalysis</i> , 2020, 3, 516-525.	34.4	166
5	The kinetics of metal oxide photoanodes from charge generation to catalysis. <i>Nature Reviews Materials</i> , 2021, 6, 1136-1155.	48.7	161
6	Trends in Activity and Dissolution on RuO <sub>2</sub> under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. <i>ACS Energy Letters</i> , 2018, 3, 2045-2051.	17.4	144
7	Enhancing oxygen reduction electrocatalysis by tuning interfacial hydrogen bonds. <i>Nature Catalysis</i> , 2021, 4, 753-762.	34.4	122
8	Spectroelectrochemical Analysis of the Water Oxidation Mechanism on Doped Nickel Oxides. <i>Journal of the American Chemical Society</i> , 2022, 144, 7622-7633.	13.7	66
9	Regulating oxygen activity of perovskites to promote NO <sub>x</sub> oxidation and reduction kinetics. <i>Nature Catalysis</i> , 2021, 4, 663-673.	34.4	54
10	Anomalous Antiferromagnetism in Metallic $\text{RuO}_2$ Determined by Resonant X-ray Scattering. <i>Physical Review Letters</i> , 2019, 122, 017202.	7.8	53
11	pH- and Cation-Dependent Water Oxidation on Rutile RuO <sub>2</sub> (110). <i>Journal of Physical Chemistry C</i> , 2021, 125, 8195-8207.	3.1	45
12	Surface Orientation Dependent Water Dissociation on Rutile Ruthenium Dioxide. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17802-17811.	3.1	44
13	Cation-Dependent Interfacial Structures and Kinetics for Outer-Sphere Electron-Transfer Reactions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4397-4411.	3.1	38
14	The low overpotential regime of acidic water oxidation part II: trends in metal and oxygen stability numbers. <i>Energy and Environmental Science</i> , 2022, 15, 1988-2001.	30.8	35
15	Spectroelectrochemistry of Water Oxidation Kinetics in Molecular versus Heterogeneous Oxide Iridium Electrocatalysts. <i>Journal of the American Chemical Society</i> , 2022, 144, 8454-8459.	13.7	25
16	Redox-State Kinetics in Water-Oxidation IrO <sub>x</sub> Electrocatalysts Measured by <i>Operando</i> Spectroelectrochemistry. <i>ACS Catalysis</i> , 2021, 11, 15013-15025.	11.2	23
17	The low overpotential regime of acidic water oxidation part I: the importance of O <sub>2</sub> detection. <i>Energy and Environmental Science</i> , 2022, 15, 1977-1987.	30.8	23
18	CO <sub>2</sub> Reactivity on Cobalt-Based Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20391-20401.	3.1	18

#	ARTICLE	IF	CITATIONS
19	Activityâ€“or Lack Thereofâ€“of RuO <sub>2</sub> -Based Electrodes in the Electrocatalytic Reduction of CO <sub>2</sub> . Journal of Physical Chemistry C, 2019, 123, 17765-17773.	3.1	13
20	Implications of Nonelectrochemical Reaction Steps on the Oxygen Evolution Reaction: Oxygen Dimer Formation on Perovskite Oxide and Oxynitride Surfaces. ACS Catalysis, 2022, 12, 1433-1442.	11.2	12
21	Reply to: Questioning the rate law in the analysis of water oxidation catalysis on haematite photoanodes. Nature Chemistry, 2020, 12, 1099-1101.	13.6	9
22	Direct Observation of Surface-Bound Intermediates During Methanol Oxidation on Platinum Under Alkaline Conditions. Journal of Physical Chemistry C, 2021, 125, 26321-26331.	3.1	8
23	Reactivity with Water and Bulk Ruthenium Redox of Lithium Ruthenate in Basic Solutions. Advanced Functional Materials, 2021, 31, 2002249.	14.9	5