

Rebecca L Giesecking

List of Publications by Year in descending order

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31
papers

1,043
citations

471509

17
h-index

454955

30
g-index

35
all docs

35
docs citations

35
times ranked

1596
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructured organic semiconductor films for molecular detection with surface-enhanced Raman spectroscopy. <i>Nature Materials</i> , 2017, 16, 918-924.	27.5	229
2	25th Anniversary Article: Design of Polymethine Dyes for All-Optical Switching Applications: Guidance from Theoretical and Computational Studies. <i>Advanced Materials</i> , 2014, 26, 68-84.	21.0	97
3	Molecular engineering of organic semiconductors enables noble metal-comparable SERS enhancement and sensitivity. <i>Nature Communications</i> , 2019, 10, 5502.	12.8	84
4	Complementary halogen and hydrogen bonding: sulfur-iodine interactions and thioamide ribbons. <i>Chemical Communications</i> , 2010, 46, 1854-1856.	4.1	78
5	Distinguishing the Effects of Bond-Length Alternation versus Bond-Order Alternation on the Nonlinear Optical Properties of π -Conjugated Chromophores. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2158-2162.	4.6	75
6	Polymethine materials with solid-state third-order optical susceptibilities suitable for all-optical signal-processing applications. <i>Materials Horizons</i> , 2014, 1, 577-581.	12.2	59
7	Semiempirical Modeling of Ag Nanoclusters: New Parameters for Optical Property Studies Enable Determination of Double Excitation Contributions to Plasmonic Excitation. <i>Journal of Physical Chemistry A</i> , 2016, 120, 4542-4549.	2.5	45
8	Theoretical modeling of voltage effects and the chemical mechanism in surface-enhanced Raman scattering. <i>Faraday Discussions</i> , 2017, 205, 149-171.	3.2	40
9	Impact of the Nature of the Excited-State Transition Dipole Moments on the Third-Order Nonlinear Optical Response of Polymethine Dyes for All-Optical Switching Applications. <i>ACS Photonics</i> , 2014, 1, 261-269.	6.6	35
10	Bias-Dependent Chemical Enhancement and Nonclassical Stark Effect in Tip-Enhanced Raman Spectromicroscopy of CO-Terminated Ag Tips. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3074-3080.	4.6	32
11	Benchmarking Density Functional Theory Approaches for the Description of Symmetry Breaking in Long Polymethine Dyes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 9975-9984.	3.1	25
12	Third-Order Nonlinear Optical Properties of Ag Nanoclusters: Connecting Molecule-like and Nanoparticle-like Behavior. <i>Chemistry of Materials</i> , 2019, 31, 6850-6859.	6.7	23
13	Nonlinear Optical Properties of $X(C_6H_5)_4$ ($X = B^+, C$) <i>Journal of the American Chemical Society</i> , 2015, 137, 9635-9642.	13.7	21
14	Impact of Bulk Aggregation on the Electronic Structure of Streptocyanines: Implications for the Solid-State Nonlinear Optical Properties and All-Optical Switching Applications. <i>Journal of Physical Chemistry C</i> , 2014, 118, 23575-23585.	3.1	20
15	Review of Plasmon-Induced Hot-Electron Dynamics and Related SERS Chemical Effects. <i>ACS Symposium Series</i> , 2016, , 1-22.	0.5	19
16	Analytical Approaches To Identify Plasmon-like Excited States in Bare and Ligand-Protected Metal Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3260-3269.	3.1	19
17	Effect of Bulky Substituents on Thiopyrylium Polymethine Aggregation in the Solid State: A Theoretical Evaluation of the Implications for All-Optical Switching Applications. <i>Chemistry of Materials</i> , 2014, 26, 6439-6447.	6.7	18
18	A new release of MOPAC incorporating the INDO/S semiempirical model with CI excited states. <i>Journal of Computational Chemistry</i> , 2021, 42, 365-378.	3.3	18

#	ARTICLE	IF	CITATIONS
19	Quantum Mechanical Identification of Quadrupolar Plasmonic Excited States in Silver Nanorods. <i>Journal of Physical Chemistry A</i> , 2016, 120, 9324-9329.	2.5	17
20	Semiempirical modeling of electrochemical charge transfer. <i>Faraday Discussions</i> , 2017, 199, 547-563.	3.2	17
21	Benchmarking Semiempirical Methods To Compute Electrochemical Formal Potentials. <i>Journal of Physical Chemistry A</i> , 2018, 122, 6809-6818.	2.5	15
22	Benchmarking Post-Hartree-Fock Methods To Describe the Nonlinear Optical Properties of Polymethines: An Investigation of the Accuracy of Algebraic Diagrammatic Construction (ADC) Approaches. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 5465-5476.	5.3	13
23	Plasmons: untangling the classical, experimental, and quantum mechanical definitions. <i>Materials Horizons</i> , 2022, 9, 25-42.	12.2	13
24	Assessment of Front-Substituted Zwitterionic Cyanine Polymethines for All-Optical Switching Applications. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14166-14175.	3.1	10
25	Implementation of INDO/SCI with COSMO Implicit Solvation and Benchmarking for Solvatochromic Shifts. <i>Journal of Physical Chemistry A</i> , 2016, 120, 9878-9885.	2.5	6
26	Evolution of plasmon-like excited states in silver nanowires and nanorods. <i>Journal of Chemical Physics</i> , 2022, 156, 074301.	3.0	5
27	Hydride- and halide-substituted Au ₉ (PH ₃) ₈ ³⁺ nanoclusters: similar absorption spectra disguise distinct geometries and electronic structures. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 17287-17299.	2.8	4
28	Recognition of halides and Y-shaped oxoanions by carbonylchromium-based urea-like molecules: A theoretical analysis of hydrogen bonding modes. <i>Journal of Molecular Graphics and Modelling</i> , 2016, 64, 1-10.	2.4	3
29	Quantum Mechanical Effects in High-Resolution Tip-Enhanced Raman Imaging. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11690-11700.	3.1	2
30	Understanding the Relationships Among Molecular Structure, Excited-State Properties, and Polarizabilities of π -Conjugated Chromophores. <i>Materials and Energy</i> , 2016, , 393-419.	0.1	1
31	Horizons Community Board collection: solar energy conversion. <i>Nanoscale Horizons</i> , 2021, 6, 839-841.	8.0	0