Jeongho Kim

List of Publications by Year in descending order

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Version: 2024-02-01

		87723	118652
106 papers	4,297 citations	38 h-index	62 g-index

112 all docs	112 docs citations	112 times ranked	5404 citing authors

#	Article	IF	Citations
1	Direct observation of bond formation in solution with femtosecond X-ray scattering. Nature, 2015, 518, 385-389.	13.7	207
2	The vibrational spectrum of the hydrated proton: Comparison of experiment, simulation, and normal mode analysis. Journal of Chemical Physics, 2002, 116, 737-746.	1.2	200
3	Significant light absorption enhancement by a single heterocyclic unit change in the Ï€-bridge moiety from thieno[3,2-b]benzothiophene to thieno[3,2-b]indole for high performance dye-sensitized and tandem solar cells. Journal of Materials Chemistry A, 2017, 5, 2297-2308.	5.2	200
4	Porphyrin Sensitizers with Donor Structural Engineering for Superior Performance Dyeâ€Sensitized Solar Cells and Tandem Solar Cells for Water Splitting Applications. Advanced Energy Materials, 2017, 7, 1602117.	10.2	193
5	Femtosecond X-ray Absorption Spectroscopy at a Hard X-ray Free Electron Laser: Application to Spin Crossover Dynamics. Journal of Physical Chemistry A, 2013, 117, 735-740.	1.1	183
6	Thieno[3,2â€b][1]benzothiophene Derivative as a New Ï€â€Bridge Unit in Dâ€“Ï€â€“A Structural Organic Sensitizers with Over 10.47% Efficiency for Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1500300.	10.2	138
7	Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. Accounts of Chemical Research, 2009, 42, 1375-1384.	7.6	113
8	Formation of pristine CuSCN layer by spray deposition method for efficient perovskite solar cell with extended stability. Nano Energy, 2017, 32, 414-421.	8.2	111
9	Novel Carbazole-Based Hole-Transporting Materials with Star-Shaped Chemical Structures for Perovskite-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 22213-22217.	4.0	104
10	Protein Structural Dynamics of Photoactive Yellow Protein in Solution Revealed by Pumpâ€“Probe X-ray Solution Scattering. Journal of the American Chemical Society, 2012, 134, 3145-3153.	6.6	95
11	Ultrafast charge transfer coupled with lattice phonons in two-dimensional covalent organic frameworks. Nature Communications, 2019, 10, 1873.	5.8	93
12	Simple synthesis and molecular engineering of low-cost and star-shaped carbazole-based hole transporting materials for highly efficient perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20263-20276.	5.2	92
13	Direct Observation of Cooperative Protein Structural Dynamics of Homodimeric Hemoglobin from 100 ps to 10 ms with Pumpâ€“Probe X-ray Solution Scattering. Journal of the American Chemical Society, 2012, 134, 7001-7008.	6.6	82
14	Exciton Fine Structure and Spin Relaxation in Semiconductor Colloidal Quantum Dots. Accounts of Chemical Research, 2009, 42, 1037-1046.	7.6	81
15	Silver bismuth iodides in various compositions as potential Pb-free light absorbers for hybrid solar cells. Sustainable Energy and Fuels, 2018, 2, 294-302.	2.5	81
16	New insight of the photocatalytic behaviors of graphitic carbon nitrides for hydrogen evolution and their associations with grain size, porosity, and photophysical properties. Applied Catalysis B: Environmental, 2017, 218, 349-358.	10.8	77
17	Ultrafast X-ray scattering: structural dynamics from diatomic to protein molecules. International Reviews in Physical Chemistry, 2010, 29, 453-520.	0.9	76
18	Atomistic characterization of the active-site solvation dynamics of a model photocatalyst. Nature Communications, 2016, 7, 13678.	5.8	74

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19	Enhancement of photovoltaic properties of CH3NH3PbBr3 heterojunction solar cells by modifying mesoporous TiO2 surfaces with carboxyl groups. Journal of Materials Chemistry A, 2015, 3, 9264-9270.	5.2	69
20	Single-step fabrication of quantum funnels via centrifugal colloidal casting of nanoparticle films. Nature Communications, 2015, 6, 7772.	5.8	68
21	50 nm sized spherical TiO₂nanocrystals for highly efficient mesoscopic perovskite solar cells. Nanoscale, 2015, 7, 8898-8906.	2.8	68
22	Size-dependence of plasmonic Au nanoparticles in photocatalytic behavior of Au/TiO 2 and Au@SiO 2 /TiO 2. Applied Catalysis A: General, 2015, 499, 47-54.	2.2	65
23	Exciton spin relaxation in quantum dots measured using ultrafast transient polarization grating spectroscopy. Physical Review B, 2006, 73, .	1.1	62
24	Ultrafast light harvesting dynamics in the cryptophyte phycocyanin 645. Photochemical and Photobiological Sciences, 2007, 6, 964-975.	1.6	62
25	Filming the Birth of Molecules and Accompanying Solvent Rearrangement. Journal of the American Chemical Society, 2013, 135, 3255-3261.	6.6	59
26	Mapping the emergence of molecular vibrations mediating bond formation. Nature, 2020, 582, 520-524.	13.7	55
27	Relaxation in the Exciton Fine Structure of Semiconductor Nanocrystals. Journal of Physical Chemistry C, 2009, 113, 795-811.	1.5	54
28	Protein Tertiary Structural Changes Visualized by Time-Resolved X-ray Solution Scattering. Journal of Physical Chemistry B, 2009, 113, 13131-13133.	1.2	51
29	Novel spherical TiO 2 aggregates with diameter of 100 nm for efficient mesoscopic perovskite solar cells. Nano Energy, 2016, 20, 272-282.	8.2	50
30	Triphenylamine-based organic sensitizers with Ï€-spacer structural engineering for dye-sensitized solar cells: Synthesis, theoretical calculations, molecular spectroscopy and structure-property-performance relationships. Dyes and Pigments, 2017, 136, 496-504.	2.0	49
31	Enhancement of open circuit voltage for CuSCN-based perovskite solar cells by controlling the perovskite/CuSCN interface with functional molecules. Journal of Materials Chemistry A, 2019, 7, 6028-6037.	5.2	49
32	Optical coherence and theoretical study of the excitation dynamics of a highly symmetric cyclophane-linked oligophenylenevinylene dimer. Journal of Chemical Physics, 2006, 124, 194904.	1.2	47
33	Nanocrystal Shape and the Mechanism of Exciton Spin Relaxation. Nano Letters, 2006, 6, 1765-1771.	4.5	45
34	Solvent-Dependent Molecular Structure of Ionic Species Directly Measured by Ultrafast X-Ray Solution Scattering. Physical Review Letters, 2013, 110, 165505.	2.9	44
35	Control of Exciton Spin Relaxation by Electronâ"Hole Decoupling in Type-II Nanocrystal Heterostructures. Nano Letters, 2008, 8, 4007-4013.	4.5	41
36	Protein Structural Dynamics Revealed by Time-Resolved X-ray Solution Scattering. Accounts of Chemical Research, 2015, 48, 2200-2208.	7.6	41

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37	Direct observation of myoglobin structural dynamics from 100 picoseconds to 1 microsecond with picosecond X-ray solution scattering. Chemical Communications, 2011, 47, 289-291.	2.2	39
38	Solvent intermolecular polarizability response in solvation. Journal of Chemical Physics, 2003, 118, 3917-3920.	1.2	38
39	Anisotropic Picosecond X-ray Solution Scattering from Photoselectively Aligned Protein Molecules. Journal of Physical Chemistry Letters, 2011, 2, 350-356.	2.1	38
40	Topical Review: Molecular reaction and solvation visualized by time-resolved X-ray solution scattering: Structure, dynamics, and their solvent dependence. Structural Dynamics, 2014, 1, 011301.	0.9	37
41	Ultrafast X-Ray Crystallography and Liquidography. Annual Review of Physical Chemistry, 2017, 68, 473-497.	4.8	37
42	Water-assisted formation of amine-bridged carbon nitride: A structural insight into the photocatalytic performance for H2 evolution under visible light. Applied Catalysis B: Environmental, 2022, 310, 121313.	10.8	37
43	Tracking reaction dynamics in solution by pumpâ€“probe X-ray absorption spectroscopy and X-ray liquidography (solution scattering). Chemical Communications, 2016, 52, 3734-3749.	2.2	35
44	Mechanism and Origin of Exciton Spin Relaxation in CdSe Nanorodsâ€. Journal of Physical Chemistry B, 2006, 110, 25371-25382.	1.2	34
45	Photochemistry of HgBr2 in methanol investigated using time-resolved X-ray liquidography. Physical Chemistry Chemical Physics, 2010, 12, 11536.	1.3	33
46	Ultrafast X-ray diffraction in liquid, solution and gas: present status and future prospects. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, 270-280.	0.3	32
47	Spin relaxation in zinc blende and wurtzite CdSe quantum dots. Chemical Physics Letters, 2010, 491, 187-192.	1.2	29
48	Measurement of Electronâ^'Electron Interactions and Correlations Using Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. Journal of Physical Chemistry A, 2009, 113, 12122-12133.	1.1	28
49	Sizing up the Exciton in Complex-Shaped Semiconductor Nanocrystals. Nano Letters, 2007, 7, 3884-3890.	4.5	27
50	Novel Ï€-extended porphyrin-based hole-transporting materials with triarylamine donor units for high performance perovskite solar cells. Dyes and Pigments, 2019, 163, 734-739.	2.0	27
51	Ultrafast Dynamics of Polarons in Conductive Polyaniline: Comparison of Primary and Secondary Doped Forms. Journal of Physical Chemistry B, 2008, 112, 15576-15587.	1.2	26
52	Femtosecond X-ray solution scattering reveals that bond formation mechanism of a gold trimer complex is independent of excitation wavelength. Structural Dynamics, 2016, 3, 043209.	0.9	26
53	Structural Dynamics of 1,2-Diiodoethane in Cyclohexane Probed by Picosecond X-ray Liquidography. Journal of Physical Chemistry A, 2012, 116, 2713-2722.	1.1	25
54	Conformational Substates of Myoglobin Intermediate Resolved by Picosecond X-ray Solution Scattering. Journal of Physical Chemistry Letters, 2014, 5, 804-808.	2.1	23

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55	Coherent Oscillations in Chlorosome Elucidated by Two-Dimensional Electronic Spectroscopy. Journal of Physical Chemistry Letters, 2014, 5, 1386-1392.	2.1	23
56	Cooperative protein structural dynamics of homodimeric hemoglobin linked to water cluster at subunit interface revealed by time-resolved X-ray solution scattering. Structural Dynamics, 2016, 3, 023610.	0.9	22
57	Combined probes of X-ray scattering and optical spectroscopy reveal how global conformational change is temporally and spatially linked to local structural perturbation in photoactive yellow protein. Physical Chemistry Chemical Physics, 2016, 18, 8911-8919.	1.3	22
58	Structural insights into photocatalytic performance of carbon nitrides for degradation of organic pollutants. Journal of Solid State Chemistry, 2018, 258, 559-565.	1.4	21
59	Acid-activated carbon nitrides as photocatalysts for degrading organic pollutants under visible light. Chemosphere, 2021, 273, 129731.	4.2	21
60	Dramatic Change of Morphological, Photophysical, and Photocatalytic H₂ Evolution Properties of C₃N₄ Materials by the Removal of Carbon Impurities. ACS Applied Energy Materials, 2020, 3, 4812-4820.	2.5	20
61	Two-dimensional measurements of the solvent structural relaxation dynamics in dipolar solvation. Physical Chemistry Chemical Physics, 2012, 14, 8116.	1.3	19
62	A dual role of phenylboronic acid as a receptor for carbohydrates as well as a quencher for neighboring pyrene fluorophore. Tetrahedron, 2013, 69, 11057-11063.	1.0	19
63	Sub-100-ps structural dynamics of horse heart myoglobin probed by time-resolved X-ray solution scattering. Chemical Physics, 2014, 442, 137-142.	0.9	19
64	SVD-aided pseudo principal-component analysis: A new method to speed up and improve determination of the optimum kinetic model from time-resolved data. Structural Dynamics, 2017, 4, 044013.	0.9	19
65	Solvent structural relaxation dynamics in dipolar solvation studied by resonant pump polarizability response spectroscopy. Physical Chemistry Chemical Physics, 2011, 13, 214-223.	1.3	18
66	Global Reaction Pathways in the Photodissociation of I₃^{â˜’} Ions in Solution at 267 and 400 nm Studied by Picosecond Xâ€ray Liquidography. ChemPhysChem, 2013, 14, 3687-3697.	1.0	18
67	Rotational dephasing of a gold complex probed by anisotropic femtosecond x-ray solution scattering using an x-ray free-electron laser. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 244005.	0.6	18
68	New thieno[3,2-b][1]benzothiophene-based organic sensitizers containing Ï€-extended thiophene spacers for efficient dye-sensitized solar cells. RSC Advances, 2015, 5, 80859-80870.	1.7	16
69	Solvent-dependent structure of molecular iodine probed by picosecond X-ray solution scattering. Physical Chemistry Chemical Physics, 2015, 17, 8633-8637.	1.3	16
70	Identifying the major intermediate species by combining time-resolved X-ray solution scattering and X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2015, 17, 23298-23302.	1.3	15
71	Direct Observation of a Transiently Formed Isomer During Iodoform Photolysis in Solution by Time-Resolved X-ray Liquidography. Journal of Physical Chemistry Letters, 2018, 9, 647-653.	2.1	15
72	Filming ultrafast roaming-mediated isomerization of bismuth triiodide in solution. Nature Communications, 2021, 12, 4732.	5.8	14

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73	Protein Folding Dynamics of Cytochrome c Seen by Transient Grating and Transient Absorption Spectroscopies. Journal of Physical Chemistry B, 2011, 115, 3127-3135.	1.2	13
74	Enhancement of the photovoltaic properties of Ag₂BiI₅by Cu doping. Sustainable Energy and Fuels, 2021, 5, 1439-1447.	2.5	13
75	Role of thermal excitation in ultrafast energy transfer in chlorosomes revealed by two-dimensional electronic spectroscopy. Physical Chemistry Chemical Physics, 2015, 17, 17872-17879.	1.3	12
76	Silicotungstate, a Potential Electron Transporting Layer for Low-Temperature Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 25257-25264.	4.0	12
77	Structural Dynamics of Bismuth Triiodide in Solution Triggered by Photoinduced Ligand-to-Metal Charge Transfer. Journal of Physical Chemistry Letters, 2019, 10, 1279-1285.	2.1	12
78	Molecular-Level Understanding of Excited States of N-Annulated Rylene Dye for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2020, 124, 22993-23003.	1.5	12
79	Ultrafast Dephasing of Photoexcited Polarons in Primary Doped Polyaniline. Journal of Physical Chemistry B, 2002, 106, 12866-12873.	1.2	11
80	Density functional and multireference ab initio study of the ground and excited states of Ru2. Chemical Physics Letters, 2014, 592, 24-29.	1.2	11
81	Optical Kerr Effect of Liquid Acetonitrile Probed by Femtosecond Time-Resolved X-ray Liquidography. Journal of the American Chemical Society, 2021, 143, 14261-14273.	6.6	11
82	Density Functional and ab Initio Investigation of CF₂ICF₂I and CF₂CF₂I Radicals in Gas and Solution Phases. Journal of Physical Chemistry A, 2009, 113, 11059-11066.	1.1	10
83	Fate of transient isomer of CH2I2: Mechanism and origin of ionic photoproducts formation unveiled by time-resolved x-ray liquidography. Journal of Chemical Physics, 2019, 150, 224201.	1.2	10
84	Production of C, N Alternating 2D Materials Using Covalent Modification and Their Electroluminescence Performance. Small Science, 2021, 1, 2000042.	5.8	9
85	Solvent-dependent complex reaction pathways of bromoform revealed by time-resolved X-ray solution scattering and X-ray transient absorption spectroscopy. Structural Dynamics, 2019, 6, 064902.	0.9	8
86	Remarkable variation of visible light photocatalytic activities of M/Sn0.9Sb0.1O2/TiO2 (M=Au, Ag, Pt) heterostructures depending on the loaded metals. Chemosphere, 2021, 265, 129160.	4.2	7
87	Enhanced Polarization Ratio of Electrospun Nanofibers with Increased Intrachain Order by Postsolvent Treatments. Journal of Physical Chemistry B, 2016, 120, 12981-12987.	1.2	6
88	Enhancement of Energy Transfer Efficiency with Structural Control of Multichromophore Lightâ€Harvesting Assembly. Advanced Science, 2020, 7, 2001623.	5.6	6
89	Tailorâ€Made Charged Catecholâ€Based Polymeric Ligands to Build Robust Fuel Cells Containing Antioxidative Nanoparticles. Advanced Electronic Materials, 2022, 8, .	2.6	6
90	Density functional and multiconfigurational ab initio study of the ground and excited states of Os₂. International Journal of Quantum Chemistry, 2014, 114, 1466-1471.	1.0	5

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91	Production of Metalâ€Free C, N Alternating Nanoplatelets and Their In Vivo Fluorescence Imaging Performance without Labeling. Advanced Functional Materials, 2020, 30, 2004800.	7.8	5
92	Prospect of Retrieving Vibrational Wave Function by Single-Object Scattering Sampling. Journal of Physical Chemistry Letters, 2013, 4, 3345-3350.	2.1	4
93	Multireference Ab Initio Study of the Ground and Low-Lying Excited States of Cr(CO)2 and Cr(CO)3. Journal of Physical Chemistry A, 2013, 117, 3861-3868.	1.1	4
94	Reactivity of molecular oxygen with aluminum clusters: Density functional and Ab Initio molecular dynamics simulation study. International Journal of Quantum Chemistry, 2016, 116, 547-554.	1.0	4
95	Structural Dynamics of C2F4I2 in Cyclohexane Studied via Time-Resolved X-ray Liquidography. International Journal of Molecular Sciences, 2021, 22, 9793.	1.8	4
96	Exciton delocalization length in chlorosomes investigated by lineshape dynamics of two-dimensional electronic spectra. Physical Chemistry Chemical Physics, 2021, 23, 24111-24117.	1.3	4
97	Femtosecond Studies of the Initial Events in the Photocycle of Photoactive Yellow Protein (PYP). , 0, , 381-390.		3
98	Transmission of quantum dot exciton spin states via resonance energy transfer. , 2005, , .		2
99	Photoactivation of triosmium dodecacarbonyl at 400 nm probed with time-resolved X-ray liquidography. Chemical Communications, 2022, 58, 7380-7383.	2.2	2
100	Synchrotron-Based Time-Resolved X-ray Solution Scattering (Liquidography). , 0, , .		1
101	Ultrafast Energy Transfer in Chlorosome Probed by Femtosecond Pump-Probe Polarization Anisotropy. Bulletin of the Korean Chemical Society, 2014, 35, 703-704.	1.0	1
102	Selective measurement of ultrafast exciton spin relaxation in quantum dots. , 2006, , .		0
103	Selective measurement of ultrafast exciton spin relaxation in quantum dots. Springer Series in Chemical Physics, 2007, , 701-703.	0.2	0
104	Measurement and Control of Ultrafast Relaxation in the Fine Structure of Nanocrystal Excitons. , 2008, , .		0
105	Radiationless Transitions and Angular Momentum Transfer in Semiconductor Nanocrystals. Springer Series in Chemical Physics, 2009, , 268-270.	0.2	0
106	Measurement of Electron Correlation Using Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. , 2010, , .		0