

Jeongho Kim

List of Publications by Year in descending order

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106
papers

4,297
citations

87888

38
h-index

118850

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. <i>Nature</i> , 2015, 518, 385-389.	27.8	207
2	The vibrational spectrum of the hydrated proton: Comparison of experiment, simulation, and normal mode analysis. <i>Journal of Chemical Physics</i> , 2002, 116, 737-746.	3.0	200
3	Significant light absorption enhancement by a single heterocyclic unit change in the π -bridge moiety from thieno[3,2-b]benzothiophene to thieno[3,2-b]indole for high performance dye-sensitized and tandem solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2297-2308.	10.3	200
4	Porphyrin Sensitizers with Donor Structural Engineering for Superior Performance Dye-Sensitized Solar Cells and Tandem Solar Cells for Water Splitting Applications. <i>Advanced Energy Materials</i> , 2017, 7, 1602117.	19.5	193
5	Femtosecond X-ray Absorption Spectroscopy at a Hard X-ray Free Electron Laser: Application to Spin Crossover Dynamics. <i>Journal of Physical Chemistry A</i> , 2013, 117, 735-740.	2.5	183
6	Thieno[3,2-b]benzothiophene Derivative as a New π -Bridge Unit in Dye-Sensitized Solar Cells with Over 10.47% Efficiency for Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500300.	19.5	138
7	Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. <i>Accounts of Chemical Research</i> , 2009, 42, 1375-1384.	15.6	113
8	Formation of pristine CuSCN layer by spray deposition method for efficient perovskite solar cell with extended stability. <i>Nano Energy</i> , 2017, 32, 414-421.	16.0	111
9	Novel Carbazole-Based Hole-Transporting Materials with Star-Shaped Chemical Structures for Perovskite-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22213-22217.	8.0	104
10	Protein Structural Dynamics of Photoactive Yellow Protein in Solution Revealed by Pump-Probe X-ray Solution Scattering. <i>Journal of the American Chemical Society</i> , 2012, 134, 3145-3153.	13.7	95
11	Ultrafast charge transfer coupled with lattice phonons in two-dimensional covalent organic frameworks. <i>Nature Communications</i> , 2019, 10, 1873.	12.8	93
12	Simple synthesis and molecular engineering of low-cost and star-shaped carbazole-based hole transporting materials for highly efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20263-20276.	10.3	92
13	Direct Observation of Cooperative Protein Structural Dynamics of Homodimeric Hemoglobin from 100 ps to 10 ms with Pump-Probe X-ray Solution Scattering. <i>Journal of the American Chemical Society</i> , 2012, 134, 7001-7008.	13.7	82
14	Exciton Fine Structure and Spin Relaxation in Semiconductor Colloidal Quantum Dots. <i>Accounts of Chemical Research</i> , 2009, 42, 1037-1046.	15.6	81
15	Silver bismuth iodides in various compositions as potential Pb-free light absorbers for hybrid solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 294-302.	4.9	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. <i>Applied Catalysis B: Environmental</i> , 2017, 218, 349-358.	20.2	77
17	Ultrafast X-ray scattering: structural dynamics from diatomic to protein molecules. <i>International Reviews in Physical Chemistry</i> , 2010, 29, 453-520.	2.3	76
18	Atomistic characterization of the active-site solvation dynamics of a model photocatalyst. <i>Nature Communications</i> , 2016, 7, 13678.	12.8	74

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19	Enhancement of photovoltaic properties of CH ₃ NH ₃ PbBr ₃ heterojunction solar cells by modifying mesoporous TiO ₂ surfaces with carboxyl groups. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9264-9270.	10.3	69
20	Single-step fabrication of quantum funnels via centrifugal colloidal casting of nanoparticle films. <i>Nature Communications</i> , 2015, 6, 7772.	12.8	68
21	50 nm sized spherical TiO ₂ nanocrystals for highly efficient mesoscopic perovskite solar cells. <i>Nanoscale</i> , 2015, 7, 8898-8906.	5.6	68
22	Size-dependence of plasmonic Au nanoparticles in photocatalytic behavior of Au/TiO ₂ and Au@SiO ₂ /TiO ₂ . <i>Applied Catalysis A: General</i> , 2015, 499, 47-54.	4.3	65
23	Exciton spin relaxation in quantum dots measured using ultrafast transient polarization grating spectroscopy. <i>Physical Review B</i> , 2006, 73, .	3.2	62
24	Ultrafast light harvesting dynamics in the cryptophyte phycocyanin 645. <i>Photochemical and Photobiological Sciences</i> , 2007, 6, 964-975.	2.9	62
25	Filming the Birth of Molecules and Accompanying Solvent Rearrangement. <i>Journal of the American Chemical Society</i> , 2013, 135, 3255-3261.	13.7	59
26	Mapping the emergence of molecular vibrations mediating bond formation. <i>Nature</i> , 2020, 582, 520-524.	27.8	55
27	Relaxation in the Exciton Fine Structure of Semiconductor Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2009, 113, 795-811.	3.1	54
28	Protein Tertiary Structural Changes Visualized by Time-Resolved X-ray Solution Scattering. <i>Journal of Physical Chemistry B</i> , 2009, 113, 13131-13133.	2.6	51
29	Novel spherical TiO ₂ aggregates with diameter of 100 nm for efficient mesoscopic perovskite solar cells. <i>Nano Energy</i> , 2016, 20, 272-282.	16.0	50
30	Triphenylamine-based organic sensitizers with Ì€-spacer structural engineering for dye-sensitized solar cells: Synthesis, theoretical calculations, molecular spectroscopy and structure-property-performance relationships. <i>Dyes and Pigments</i> , 2017, 136, 496-504.	3.7	49
31	Enhancement of open circuit voltage for CuSCN-based perovskite solar cells by controlling the perovskite/CuSCN interface with functional molecules. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6028-6037.	10.3	49
32	Optical coherence and theoretical study of the excitation dynamics of a highly symmetric cyclophane-linked oligophenylenevinylene dimer. <i>Journal of Chemical Physics</i> , 2006, 124, 194904.	3.0	47
33	Nanocrystal Shape and the Mechanism of Exciton Spin Relaxation. <i>Nano Letters</i> , 2006, 6, 1765-1771.	9.1	45
34	Solvent-Dependent Molecular Structure of Ionic Species Directly Measured by Ultrafast X-Ray Solution Scattering. <i>Physical Review Letters</i> , 2013, 110, 165505.	7.8	44
35	Control of Exciton Spin Relaxation by Electron-Hole Decoupling in Type-II Nanocrystal Heterostructures. <i>Nano Letters</i> , 2008, 8, 4007-4013.	9.1	41
36	Protein Structural Dynamics Revealed by Time-Resolved X-ray Solution Scattering. <i>Accounts of Chemical Research</i> , 2015, 48, 2200-2208.	15.6	41

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37	Direct observation of myoglobin structural dynamics from 100 picoseconds to 1 microsecond with picosecond X-ray solution scattering. <i>Chemical Communications</i> , 2011, 47, 289-291.	4.1	39
38	Solvent intermolecular polarizability response in solvation. <i>Journal of Chemical Physics</i> , 2003, 118, 3917-3920.	3.0	38
39	Anisotropic Picosecond X-ray Solution Scattering from Photoselectively Aligned Protein Molecules. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 350-356.	4.6	38
40	Topical Review: Molecular reaction and solvation visualized by time-resolved X-ray solution scattering: Structure, dynamics, and their solvent dependence. <i>Structural Dynamics</i> , 2014, 1, 011301.	2.3	37
41	Ultrafast X-Ray Crystallography and Liquidography. <i>Annual Review of Physical Chemistry</i> , 2017, 68, 473-497.	10.8	37
42	Water-assisted formation of amine-bridged carbon nitride: A structural insight into the photocatalytic performance for H ₂ evolution under visible light. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121313.	20.2	37
43	Tracking reaction dynamics in solution by pump-probe X-ray absorption spectroscopy and X-ray liquidography (solution scattering). <i>Chemical Communications</i> , 2016, 52, 3734-3749.	4.1	35
44	Mechanism and Origin of Exciton Spin Relaxation in CdSe Nanorods. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25371-25382.	2.6	34
45	Photochemistry of HgBr ₂ in methanol investigated using time-resolved X-ray liquidography. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11536.	2.8	33
46	Ultrafast X-ray diffraction in liquid, solution and gas: present status and future prospects. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, 270-280.	0.3	32
47	Spin relaxation in zinc blende and wurtzite CdSe quantum dots. <i>Chemical Physics Letters</i> , 2010, 491, 187-192.	2.6	29
48	Measurement of Electron-Electron Interactions and Correlations Using Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2009, 113, 12122-12133.	2.5	28
49	Sizing up the Exciton in Complex-Shaped Semiconductor Nanocrystals. <i>Nano Letters</i> , 2007, 7, 3884-3890.	9.1	27
50	Novel π -extended porphyrin-based hole-transporting materials with triarylamine donor units for high performance perovskite solar cells. <i>Dyes and Pigments</i> , 2019, 163, 734-739.	3.7	27
51	Ultrafast Dynamics of Polarons in Conductive Polyaniline: Comparison of Primary and Secondary Doped Forms. <i>Journal of Physical Chemistry B</i> , 2008, 112, 15576-15587.	2.6	26
52	Femtosecond X-ray solution scattering reveals that bond formation mechanism of a gold trimer complex is independent of excitation wavelength. <i>Structural Dynamics</i> , 2016, 3, 043209.	2.3	26
53	Structural Dynamics of 1,2-Diiodoethane in Cyclohexane Probed by Picosecond X-ray Liquidography. <i>Journal of Physical Chemistry A</i> , 2012, 116, 2713-2722.	2.5	25
54	Conformational Substates of Myoglobin Intermediate Resolved by Picosecond X-ray Solution Scattering. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 804-808.	4.6	23

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55	Coherent Oscillations in Chlorosome Elucidated by Two-Dimensional Electronic Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1386-1392.	4.6	23
56	Cooperative protein structural dynamics of homodimeric hemoglobin linked to water cluster at subunit interface revealed by time-resolved X-ray solution scattering. <i>Structural Dynamics</i> , 2016, 3, 023610.	2.3	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. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 8911-8919.	2.8	22
58	Structural insights into photocatalytic performance of carbon nitrides for degradation of organic pollutants. <i>Journal of Solid State Chemistry</i> , 2018, 258, 559-565.	2.9	21
59	Acid-activated carbon nitrides as photocatalysts for degrading organic pollutants under visible light. <i>Chemosphere</i> , 2021, 273, 129731.	8.2	21
60	Dramatic Change of Morphological, Photophysical, and Photocatalytic H ₂ Evolution Properties of C ₃ N ₄ Materials by the Removal of Carbon Impurities. <i>ACS Applied Energy Materials</i> , 2020, 3, 4812-4820.	5.1	20
61	Two-dimensional measurements of the solvent structural relaxation dynamics in dipolar solvation. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 8116.	2.8	19
62	A dual role of phenylboronic acid as a receptor for carbohydrates as well as a quencher for neighboring pyrene fluorophore. <i>Tetrahedron</i> , 2013, 69, 11057-11063.	1.9	19
63	Sub-100-ps structural dynamics of horse heart myoglobin probed by time-resolved X-ray solution scattering. <i>Chemical Physics</i> , 2014, 442, 137-142.	1.9	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. <i>Structural Dynamics</i> , 2017, 4, 044013.	2.3	19
65	Solvent structural relaxation dynamics in dipolar solvation studied by resonant pump polarizability response spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 214-223.	2.8	18
66	Global Reaction Pathways in the Photodissociation of I ₃ ⁺ Ions in Solution at 267 and 400 nm Studied by Picosecond X-ray Liquidography. <i>ChemPhysChem</i> , 2013, 14, 3687-3697.	2.1	18
67	Rotational dephasing of a gold complex probed by anisotropic femtosecond x-ray solution scattering using an x-ray free-electron laser. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 244005.	1.5	18
68	New thieno[3,2-b][1]benzothiophene-based organic sensitizers containing π -extended thiophene spacers for efficient dye-sensitized solar cells. <i>RSC Advances</i> , 2015, 5, 80859-80870.	3.6	16
69	Solvent-dependent structure of molecular iodine probed by picosecond X-ray solution scattering. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8633-8637.	2.8	16
70	Identifying the major intermediate species by combining time-resolved X-ray solution scattering and X-ray absorption spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23298-23302.	2.8	15
71	Direct Observation of a Transiently Formed Isomer During Iodoform Photolysis in Solution by Time-Resolved X-ray Liquidography. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 647-653.	4.6	15
72	Filming ultrafast roaming-mediated isomerization of bismuth triiodide in solution. <i>Nature Communications</i> , 2021, 12, 4732.	12.8	14

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73	Protein Folding Dynamics of Cytochrome <i>c</i> Seen by Transient Grating and Transient Absorption Spectroscopies. <i>Journal of Physical Chemistry B</i> , 2011, 115, 3127-3135.	2.6	13
74	Enhancement of the photovoltaic properties of Ag ₂ Bil ₅ by Cu doping. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1439-1447.	4.9	13
75	Role of thermal excitation in ultrafast energy transfer in chlorosomes revealed by two-dimensional electronic spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 17872-17879.	2.8	12
76	Silicotungstate, a Potential Electron Transporting Layer for Low-Temperature Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 25257-25264.	8.0	12
77	Structural Dynamics of Bismuth Triiodide in Solution Triggered by Photoinduced Ligand-to-Metal Charge Transfer. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1279-1285.	4.6	12
78	Molecular-Level Understanding of Excited States of N-Annulated Rylene Dye for Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22993-23003.	3.1	12
79	Ultrafast Dephasing of Photoexcited Polarons in Primary Doped Polyaniline. <i>Journal of Physical Chemistry B</i> , 2002, 106, 12866-12873.	2.6	11
80	Density functional and multireference ab initio study of the ground and excited states of Ru ₂ . <i>Chemical Physics Letters</i> , 2014, 592, 24-29.	2.6	11
81	Optical Kerr Effect of Liquid Acetonitrile Probed by Femtosecond Time-Resolved X-ray Liquidography. <i>Journal of the American Chemical Society</i> , 2021, 143, 14261-14273.	13.7	11
82	Density Functional and ab Initio Investigation of CF ₂ ICF ₂ I and CF ₂ CF ₂ I Radicals in Gas and Solution Phases. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11059-11066.	2.5	10
83	Fate of transient isomer of CH ₂ I ₂ : Mechanism and origin of ionic photoproducts formation unveiled by time-resolved x-ray liquidography. <i>Journal of Chemical Physics</i> , 2019, 150, 224201.	3.0	10
84	Production of C, N Alternating 2D Materials Using Covalent Modification and Their Electroluminescence Performance. <i>Small Science</i> , 2021, 1, 2000042.	9.9	9
85	Solvent-dependent complex reaction pathways of bromoform revealed by time-resolved X-ray solution scattering and X-ray transient absorption spectroscopy. <i>Structural Dynamics</i> , 2019, 6, 064902.	2.3	8
86	Remarkable variation of visible light photocatalytic activities of M/Sn _{0.9} Sb _{0.1} O ₂ /TiO ₂ (M=Au, Ag, Pt) heterostructures depending on the loaded metals. <i>Chemosphere</i> , 2021, 265, 129160.	8.2	7
87	Enhanced Polarization Ratio of Electrospun Nanofibers with Increased Intrachain Order by Postsolvent Treatments. <i>Journal of Physical Chemistry B</i> , 2016, 120, 12981-12987.	2.6	6
88	Enhancement of Energy Transfer Efficiency with Structural Control of Multichromophore Light Harvesting Assembly. <i>Advanced Science</i> , 2020, 7, 2001623.	11.2	6
89	Tailor-Made Charged Catechol-Based Polymeric Ligands to Build Robust Fuel Cells Containing Antioxidative Nanoparticles. <i>Advanced Electronic Materials</i> , 2022, 8, .	5.1	6
90	Density functional and multiconfigurational ab initio study of the ground and excited states of Os ₂ . <i>International Journal of Quantum Chemistry</i> , 2014, 114, 1466-1471.	2.0	5

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91	Production of Metal-Free C, N Alternating Nanoplatelets and Their In Vivo Fluorescence Imaging Performance without Labeling. <i>Advanced Functional Materials</i> , 2020, 30, 2004800.	14.9	5
92	Prospect of Retrieving Vibrational Wave Function by Single-Object Scattering Sampling. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3345-3350.	4.6	4
93	Multireference Ab Initio Study of the Ground and Low-Lying Excited States of Cr(CO) ₂ and Cr(CO) ₃ . <i>Journal of Physical Chemistry A</i> , 2013, 117, 3861-3868.	2.5	4
94	Reactivity of molecular oxygen with aluminum clusters: Density functional and <i>Ab Initio</i> molecular dynamics simulation study. <i>International Journal of Quantum Chemistry</i> , 2016, 116, 547-554.	2.0	4
95	Structural Dynamics of C ₂ F ₄ I ₂ in Cyclohexane Studied via Time-Resolved X-ray Liquidography. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9793.	4.1	4
96	Exciton delocalization length in chlorosomes investigated by lineshape dynamics of two-dimensional electronic spectra. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24111-24117.	2.8	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 trismium dodecacarbonyl at 400 nm probed with time-resolved X-ray liquidography. <i>Chemical Communications</i> , 2022, 58, 7380-7383.	4.1	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. <i>Bulletin of the Korean Chemical Society</i> , 2014, 35, 703-704.	1.9	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. <i>Springer Series in Chemical Physics</i> , 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. <i>Springer Series in Chemical Physics</i> , 2009, , 268-270.	0.2	0
106	Measurement of Electron Correlation Using Two-Dimensional Electronic Double-Quantum Coherence Spectroscopy. , 2010, , .		0