

Ahmed H Zewail

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

375
papers

25,639
citations

83
h-index

143
g-index

385
ext. papers

27,346
ext. citations

9.1
avg, IF

7.39
L-index

#	Paper	IF	Citations
375	Spatiotemporal Imaging of Thickness-Induced Band-Bending Junctions. <i>Nano Letters</i> , 2021 , 21, 5745-5753	11.5	3
374	4D electron microscopy of T cell activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 22014-22019	11.5	5
373	Observation of dynamical crater-shaped charge distribution in the space-time imaging of monolayer graphene. <i>Nanoscale</i> , 2018 , 10, 10343-10350	7.7	3
372	Direct Visualization of Photomorphic Reaction Dynamics of Plasmonic Nanoparticles in Liquid by Four-Dimensional Electron Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4045-4052	6.4	7
371	Imaging rotational dynamics of nanoparticles in liquid by 4D electron microscopy. <i>Science</i> , 2017 , 355, 494-498	33.3	61
370	Ultrafast Elemental and Oxidation-State Mapping of Hematite by 4D Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2017 , 139, 4916-4922	16.4	23
369	Ultrafast lattice dynamics of single crystal and polycrystalline gold nanofilms?. <i>Chemical Physics Letters</i> , 2017 , 683, 258-261	2.5	9
368	Spatial-Temporal Imaging of Anisotropic Photocarrier Dynamics in Black Phosphorus. <i>Nano Letters</i> , 2017 , 17, 3675-3680	11.5	40
367	Photoinduced nanobubble-driven superfast diffusion of nanoparticles imaged by 4D electron microscopy. <i>Science Advances</i> , 2017 , 3, e1701160	14.3	27
366	Ultrafast atomic-scale visualization of acoustic phonons generated by optically excited quantum dots. <i>Structural Dynamics</i> , 2017 , 4, 044034	3.2	6
365	Photon-Induced Near-Field Electron Microscopy of Eukaryotic Cells. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 11498-11501	16.4	10
364	Photon-Induced Near-Field Electron Microscopy of Eukaryotic Cells. <i>Angewandte Chemie</i> , 2017 , 129, 11656-11659	16.4	10
363	Dynamics and control of gold-encapped gallium arsenide nanowires imaged by 4D electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 12876-12881	11.5	12
362	Photo-excited hot carrier dynamics in hydrogenated amorphous silicon imaged by 4D electron microscopy. <i>Nature Nanotechnology</i> , 2017 , 12, 871-876	28.7	34
361	Infrared PINEM developed by diffraction in 4D UEM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 2041-6	11.5	21
360	On the dynamical nature of the active center in a single-site photocatalyst visualized by 4D ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 503-8	11.5	27
359	Ultrafast Light and Electrons: Imaging the Invisible 2016 , 43-68		

358	Ultrafast electron crystallography of the cooperative reaction path in vanadium dioxide. <i>Structural Dynamics</i> , 2016 , 3, 034304	3.2	18
357	Perspective: 4D ultrafast electron microscopy--Evolutions and revolutions. <i>Journal of Chemical Physics</i> , 2016 , 144, 080901	3.9	41
356	Rippling ultrafast dynamics of suspended 2D monolayers, graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E6555-E6561	11.5	27
355	Transient Structures and Possible Limits of Data Recording in Phase-Change Materials. <i>ACS Nano</i> , 2015 , 9, 6728-37	16.7	30
354	Nanomechanics and intermolecular forces of amyloid revealed by four-dimensional electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 3380-5	11.5	36
353	Photonics and Plasmonics in 4D Ultrafast Electron Microscopy. <i>ACS Photonics</i> , 2015 , 2, 1391-1402	6.3	49
352	Photon gating in four-dimensional ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 12944-9	11.5	26
351	Ultrafast core-loss spectroscopy in four-dimensional electron microscopy. <i>Structural Dynamics</i> , 2015 , 2, 024302	3.2	45
350	Observing in space and time the ephemeral nucleation of liquid-to-crystal phase transitions. <i>Nature Communications</i> , 2015 , 6, 8639	17.4	17
349	Observing Liquid Flow in Nanotubes. <i>Microscopy and Microanalysis</i> , 2015 , 21, 1205-1206	0.5	
348	Origin of axial and radial expansions in carbon nanotubes revealed by ultrafast diffraction and spectroscopy. <i>ACS Nano</i> , 2015 , 9, 1721-9	16.7	20
347	Dire need for a Middle Eastern science spring. <i>Nature Materials</i> , 2014 , 13, 318-20	27	2
346	Observing (non)linear lattice dynamics in graphite by ultrafast Kikuchi diffraction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 5491-6	11.5	25
345	Structural dynamics effects on the ultrafast chemical bond cleavage of a photodissociation reaction. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 8812-8	3.6	35
344	Dominance of misfolded intermediates in the dynamics of helix folding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 14424-9	11.5	14
343	4D imaging and diffraction dynamics of single-particle phase transition in heterogeneous ensembles. <i>Nano Letters</i> , 2014 , 14, 946-54	11.5	21
342	Nanofluidics. Observing liquid flow in nanotubes by 4D electron microscopy. <i>Science</i> , 2014 , 344, 1496-500	35.3	42
341	Diffraction of quantum dots reveals nanoscale ultrafast energy localization. <i>Nano Letters</i> , 2014 , 14, 6148-54	18.5	25

340	Seeing in 4D with electrons: Development of ultrafast electron microscopy at Caltech. <i>Comptes Rendus Physique</i> , 2014 , 15, 176-189	1.4	21
339	Visualization of carrier dynamics in p(n)-type GaAs by scanning ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 2094-9	11.5	38
338	Characterization of fast photoelectron packets in weak and strong laser fields in ultrafast electron microscopy. <i>Ultramicroscopy</i> , 2014 , 146, 97-102	3.1	27
337	Photon-induced near-field electron microscopy: Mathematical formulation of the relation between the experimental observables and the optically driven charge density of nanoparticles. <i>Physical Review A</i> , 2014 , 89,	2.6	15
336	4D multiple-cathode ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 10479-84	11.5	10
335	4D Visualization of Matter 2014 ,		14
334	Unusual molecular material formed through irreversible transformation and revealed by 4D electron microscopy. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 7831-8	3.6	11
333	4D cryo-electron microscopy of proteins. <i>Journal of the American Chemical Society</i> , 2013 , 135, 19123-6	16.4	28
332	Environmental scanning ultrafast electron microscopy: structural dynamics of solvation at interfaces. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 2897-901	16.4	23
331	Single-nanoparticle phase transitions visualized by four-dimensional electron microscopy. <i>Nature Chemistry</i> , 2013 , 5, 395-402	17.6	112
330	Photon-induced near field electron microscopy 2013 ,		3
329	Graphene-layered steps and their fields visualized by 4D electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 9277-82	11.5	24
328	Biomechanics of DNA structures visualized by 4D electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 2822-7	11.5	30
327	Exceptional rigidity and biomechanics of amyloid revealed by 4D electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 10976-81	11.5	67
326	Environmental Scanning Ultrafast Electron Microscopy: Structural Dynamics of Solvation at Interfaces. <i>Angewandte Chemie</i> , 2013 , 125, 2969-2973	3.6	1
325	Enhancing image contrast and slicing electron pulses in 4D near field electron microscopy. <i>Chemical Physics Letters</i> , 2012 , 521, 1-6	2.5	21
324	Structural Dynamics of Free Amino Acids in Diffraction. <i>Angewandte Chemie</i> , 2012 , 124, 103-106	3.6	
323	Structural dynamics of free amino acids in diffraction. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 99-102	16.4	4

322	Direct visualization of near-fields in nanoplasmonics and nanophotonics. <i>Nano Letters</i> , 2012 , 12, 3334-8	11.5	49
321	Relativistic effects in photon-induced near field electron microscopy. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 11128-33	2.8	32
320	Ultrafast Kikuchi diffraction: nanoscale stress-strain dynamics of wave-guiding structures. <i>Nano Letters</i> , 2012 , 12, 3772-7	11.5	21
319	Entangled nanoparticles: discovery by visualization in 4D electron microscopy. <i>Nano Letters</i> , 2012 , 12, 5027-32	11.5	48
318	Subparticle ultrafast spectrum imaging in 4D electron microscopy. <i>Science</i> , 2012 , 335, 59-64	33.3	130
317	Ultrafast electron crystallography of monolayer adsorbates on clean surfaces: Structural dynamics. <i>Chemical Physics Letters</i> , 2012 , 542, 1-7	2.5	13
316	Ultrafast electron crystallography of heterogeneous structures: Gold-graphene bilayer and ligand-encapsulated nanogold on graphene. <i>Chemical Physics Letters</i> , 2012 , 542, 8-12	2.5	11
315	4D electron microscopy: principles and applications. <i>Accounts of Chemical Research</i> , 2012 , 45, 1828-39	24.3	168
314	4D electron microscopy visualization of anisotropic atomic motions in carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2012 , 134, 9146-9	16.4	25
313	Chirped imaging pulses in four-dimensional electron microscopy: femtosecond pulsed hole burning. <i>New Journal of Physics</i> , 2012 , 14, 053046	2.9	22
312	Structural dynamics of free proteins in diffraction. <i>Journal of the American Chemical Society</i> , 2011 , 133, 17072-86	16.4	4
311	Nanomusical systems visualized and controlled in 4D electron microscopy. <i>Nano Letters</i> , 2011 , 11, 2183-9	11.5	23
310	Structural dynamics of nanoscale gold by ultrafast electron crystallography. <i>Chemical Physics Letters</i> , 2011 , 515, 278-282	2.5	23
309	4D scanning transmission ultrafast electron microscopy: Single-particle imaging and spectroscopy. <i>Journal of the American Chemical Society</i> , 2011 , 133, 10732-5	16.4	35
308	4D scanning ultrafast electron microscopy: visualization of materials surface dynamics. <i>Journal of the American Chemical Society</i> , 2011 , 133, 7708-11	16.4	71
307	Irreversible chemical reactions visualized in space and time with 4D electron microscopy. <i>Journal of the American Chemical Society</i> , 2011 , 133, 1730-3	16.4	23
306	Biological water: A critique. <i>Chemical Physics Letters</i> , 2011 , 503, 1-11	2.5	234
305	Primary structural dynamics in graphite. <i>New Journal of Physics</i> , 2011 , 13, 063030	2.9	45

304	Kikuchi ultrafast nanodiffraction in four-dimensional electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 3152-6	11.5	36
303	Speed limit of protein folding evidenced in secondary structure dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 16622-7	11.5	36
302	Structural dynamics of surfaces by ultrafast electron crystallography: experimental and multiple scattering theory. <i>Journal of Chemical Physics</i> , 2011 , 135, 214201	3.9	25
301	Macromolecular structural dynamics visualized by pulsed dose control in 4D electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 6026-31	11.5	38
300	Filming the invisible in 4-D. <i>Scientific American</i> , 2010 , 303, 74-81	0.5	16
299	Scanning ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 14993-8	11.5	92
298	Carbone et al. Reply:. <i>Physical Review Letters</i> , 2010 , 105,	7.4	13
297	Hydration dynamics at fluorinated protein surfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 17101-6	11.5	58
296	Biological imaging with 4D ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 9933-7	11.5	70
295	Micrographia of the twenty-first century: from camera obscura to 4D microscopy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010 , 368, 1191-204	3	21
294	Photon-induced near-field electron microscopy (PINEM): theoretical and experimental. <i>New Journal of Physics</i> , 2010 , 12, 123028	2.9	150
293	Optomechanical and crystallization phenomena visualized with 4D electron microscopy: interfacial carbon nanotubes on silicon nitride. <i>Nano Letters</i> , 2010 , 10, 1892-9	11.5	27
292	Nonchaotic nonlinear motion visualized in complex nanostructures by stereographic 4D electron microscopy. <i>Nano Letters</i> , 2010 , 10, 3190-8	11.5	19
291	4D Lorentz electron microscopy imaging: magnetic domain wall nucleation, reversal, and wave velocity. <i>Nano Letters</i> , 2010 , 10, 3796-803	11.5	49
290	Four-dimensional electron microscopy. <i>Science</i> , 2010 , 328, 187-93	33.3	547
289	Nanofriction visualized in space and time by 4D electron microscopy. <i>Nano Letters</i> , 2010 , 10, 4767-73	11.5	13
288	4D electron tomography. <i>Science</i> , 2010 , 328, 1668-73	33.3	107
287	The future of chemical physics. <i>Chemical Physics</i> , 2010 , 378, 1-3	2.3	5

286	Direct structural determination of conformations of photoswitchable molecules by laser desorption-electron diffraction. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 6524-7	16.4	22
285	Structural dynamics and transient electric-field effects in ultrafast electron diffraction from surfaces. <i>Chemical Physics Letters</i> , 2010 , 493, 11-18	2.5	36
284	The new age of structural dynamics. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010 , 66, 135-6		9
283	Solvation in protein (un)folding of melittin tetramer-monomer transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 12593-8	11.5	42
282	Temporal lenses for attosecond and femtosecond electron pulses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 10558-63	11.5	64
281	Ordered water structure at hydrophobic graphite interfaces observed by 4D, ultrafast electron crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 4122-6	11.5	75
280	Conformations and coherences in structure determination by ultrafast electron diffraction. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 4075-93	2.8	15
279	Electron and X-ray methods of ultrafast structural dynamics: advances and applications. <i>ChemPhysChem</i> , 2009 , 10, 28-43	3.2	189
278	Primary peptide folding dynamics observed with ultrafast temperature jump. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 5628-32	16.4	36
277	Charge transfer assisted by collective hydrogen-bonding dynamics. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 6251-6	16.4	49
276	Photon-induced near-field electron microscopy. <i>Nature</i> , 2009 , 462, 902-6	50.4	359
275	4D attosecond imaging with free electrons: Diffraction methods and potential applications. <i>Chemical Physics</i> , 2009 , 366, 2-8	2.3	46
274	4D ultrafast electron microscopy: imaging of atomic motions, acoustic resonances, and moiré fringe dynamics. <i>Ultramicroscopy</i> , 2009 , 110, 7-19	3.1	55
273	EELS femtosecond resolved in 4D ultrafast electron microscopy. <i>Chemical Physics Letters</i> , 2009 , 468, 107-111	2.5	58
272	Structure of isolated biomolecules by electron diffraction-laser desorption: uracil and guanine. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2806-8	16.4	34
271	4D nanoscale diffraction observed by convergent-beam ultrafast electron microscopy. <i>Science</i> , 2009 , 326, 708-12	33.3	76
270	Dynamics of chemical bonding mapped by energy-resolved 4D electron microscopy. <i>Science</i> , 2009 , 325, 181-4	33.3	153
269	Heating and cooling dynamics of carbon nanotubes observed by temperature-jump spectroscopy and electron microscopy. <i>Journal of the American Chemical Society</i> , 2009 , 131, 16010-1	16.4	15

268	New light on molecular and materials complexity: 4D electron imaging. <i>Journal of the American Chemical Society</i> , 2009 , 131, 17998-8015	16.4	17
267	Direct observation of martensitic phase-transformation dynamics in iron by 4D single-pulse electron microscopy. <i>Nano Letters</i> , 2009 , 9, 3954-62	11.5	43
266	Nanomechanical motions of cantilevers: direct imaging in real space and time with 4D electron microscopy. <i>Nano Letters</i> , 2009 , 9, 875-81	11.5	61
265	Structural ultrafast dynamics of macromolecules: diffraction of free DNA and effect of hydration. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 10619-32	3.6	10
264	Four-dimensional Visualization of Transitional Structures in Phase Transformations by Electron Diffraction. <i>Springer Series in Chemical Physics</i> , 2009 , 116-118	0.3	1
263	4D Electron Microscopy 2009 ,		96
262	Attosecond Free Electron Pulses for Diffraction and Microscopy. <i>Springer Series in Chemical Physics</i> , 2009 , 155-157	0.3	0
261	4D imaging of transient structures and morphologies in ultrafast electron microscopy. <i>Science</i> , 2008 , 322, 1227-31	33.3	196
260	Unfolding and melting of DNA (RNA) hairpins: the concept of structure-specific 2D dynamic landscapes. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 4227-39	3.6	28
259	Ultrashort electron pulses for diffraction, crystallography and microscopy: theoretical and experimental resolutions. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 2894-909	3.6	99
258	4D electron imaging: principles and perspectives. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 2879-93	3.6	55
257	Direct observation of the primary bond-twisting dynamics of stilbene anion radical. <i>Journal of the American Chemical Society</i> , 2008 , 130, 6708-9	16.4	10
256	Nanoscale mechanical drumming visualized by 4D electron microscopy. <i>Nano Letters</i> , 2008 , 8, 3557-62	11.5	75
255	Direct role of structural dynamics in electron-lattice coupling of superconducting cuprates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 20161-6	11.5	65
254	4D visualization of embryonic, structural crystallization by single-pulse microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 8519-24	11.5	34
253	Dynamics of ligand substitution in labile cobalt complexes resolved by ultrafast T-jump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 12754-7	11.5	22
252	4D electron diffraction reveals correlated unidirectional behavior in zinc oxide nanowires. <i>Science</i> , 2008 , 321, 1660-4	33.3	67
251	Physical Biology: 4D Visualization of Complexity 2008 , 23-49		4

250	Structural preablation dynamics of graphite observed by ultrafast electron crystallography. <i>Physical Review Letters</i> , 2008 , 100, 035501	7.4	121
249	Dynamics of electrons in ammonia cages: the discovery system of solvation. <i>ChemPhysChem</i> , 2008 , 9, 83-8	3.2	29
248	Ultrafast electron diffraction reveals dark structures of the biological chromophore indole. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 9496-9	16.4	35
247	Physical Biology 2008 ,		18
246	Ultrafast Electron Crystallography. 1. Nonequilibrium Dynamics of Nanometer-Scale Structures. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 4889-4919	3.8	60
245	Ultrafast electron microscopy (UEM): four-dimensional imaging and diffraction of nanostructures during phase transitions. <i>Nano Letters</i> , 2007 , 7, 2552-8	11.5	53
244	Ultrafast Electron Crystallography. 3. Theoretical Modeling of Structural Dynamics \square <i>Journal of Physical Chemistry C</i> , 2007 , 111, 8957-8970	3.8	18
243	Ultrafast Electron Crystallography. 2. Surface Adsorbates of Crystalline Fatty Acids and Phospholipids. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 4920-4938	3.8	16
242	Atomic-scale imaging in real and energy space developed in ultrafast electron microscopy. <i>Nano Letters</i> , 2007 , 7, 2545-51	11.5	78
241	Controlled nanoscale mechanical phenomena discovered with ultrafast electron microscopy. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 9206-10	16.4	38
240	Double proton transfer dynamics of model DNA base pairs in the condensed phase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 8703-8	11.5	145
239	Attosecond electron pulses for 4D diffraction and microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18409-14	11.5	137
238	Picosecond Time-Resolved Dynamics of Vibrational-Energy Redistribution and Coherence in Beam-Isolated Molecules. <i>Advances in Chemical Physics</i> , 2007 , 265-364		66
237	Coherent Processes in Molecular Crystals. <i>Advances in Chemical Physics</i> , 2007 , 369-484		33
236	Ultrafast light-induced response of photoactive yellow protein chromophore analogues. <i>Photochemical and Photobiological Sciences</i> , 2007 , 6, 780-7	4.2	27
235	Nonequilibrium phase transitions in cuprates observed by ultrafast electron crystallography. <i>Science</i> , 2007 , 316, 425-9	33.3	189
234	Picosecond fluctuating protein energy landscape mapped by pressure temperature molecular dynamics simulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 17261-5	11.5	63
233	4D visualization of transitional structures in phase transformations by electron diffraction. <i>Science</i> , 2007 , 318, 788-92	33.3	415

232	DNA folding and melting observed in real time redefine the energy landscape. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 712-6	11.5	91
231	Ultrafast electron crystallography of phospholipids. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 5154-8	16.4	20
230	Determining molecular structures and conformations directly from electron diffraction using a genetic algorithm. <i>ChemPhysChem</i> , 2006 , 7, 353-62	3.2	12
229	Oriented ensembles in ultrafast electron diffraction. <i>ChemPhysChem</i> , 2006 , 7, 1562-74	3.2	28
228	Ultrafast photoisomerization of photoactive yellow protein chromophore analogues in solution: influence of the protonation state. <i>ChemPhysChem</i> , 2006 , 7, 1717-26	3.2	58
227	Ultrafast Electron Crystallography of Phospholipids. <i>Angewandte Chemie</i> , 2006 , 118, 5278-5282	3.6	1
226	Protein surface hydration mapped by site-specific mutations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 13979-84	11.5	139
225	Primary steps of the photoactive yellow protein: isolated chromophore dynamics and protein directed function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 258-62	11.5	72
224	Breaking resolution limits in ultrafast electron diffraction and microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 16105-10	11.5	153
223	Ultrafast electron diffraction: excited state structures and chemistries of aromatic carbonyls. <i>Journal of Chemical Physics</i> , 2006 , 124, 174707	3.9	57
222	Dynamics of clusters: from elementary to biological structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 10570-6	11.5	13
221	Four-dimensional ultrafast electron microscopy of phase transitions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 18427-31	11.5	93
220	Ultrafast vectorial and scalar dynamics of ionic clusters: azobenzene solvated by oxygen. <i>Journal of Chemical Physics</i> , 2006 , 125, 133408	3.9	9
219	4D ultrafast electron diffraction, crystallography, and microscopy. <i>Annual Review of Physical Chemistry</i> , 2006 , 57, 65-103	15.7	400
218	Ultrafast T-jump in water: studies of conformation and reaction dynamics at the thermal limit. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6338-40	16.4	34
217	Ultrafast solvation dynamics of human serum albumin: correlations with conformational transitions and site-selected recognition. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 10540-9	3.4	136
216	Helix-to-coil transitions in proteins: Helicity resonance in ultrafast electron diffraction. <i>Chemical Physics Letters</i> , 2006 , 420, 1-7	2.5	18
215	Non-equilibrium dynamics and structure of interfacial ice. <i>Chemical Physics Letters</i> , 2006 , 426, 115-119	2.5	7

214	Ultrafast electron diffraction: structural dynamics of molecular rearrangement in the NO release from nitrobenzene. <i>Chemistry - an Asian Journal</i> , 2006 , 1, 56-63	4.5	38
213	4D Structural Dynamics 2006 , 3-13		
212	Ultrafast electron diffraction: dynamical structures on complex energy landscapes. <i>ChemPhysChem</i> , 2005 , 6, 2228-50	3.2	27
211	Four-dimensional ultrafast electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 7069-73	11.5	247
210	Diffraction, crystallography and microscopy beyond three dimensions: structural dynamics in space and time. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005 , 363, 315-29	3	52
209	Ultrafast unequilibrated charge transfer: A new channel in the quenching of fluorescent biological probes. <i>Chemical Physics Letters</i> , 2005 , 412, 158-163	2.5	66
208	Ultrafast electron diffraction: oriented molecular structures in space and time. <i>ChemPhysChem</i> , 2005 , 6, 2261-76	3.2	39
207	Dark structures in molecular radiationless transitions determined by ultrafast diffraction. <i>Science</i> , 2005 , 307, 558-63	33.3	129
206	RNA-protein recognition: single-residue ultrafast dynamical control of structural specificity and function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 13013-8	11.5	32
205	Excited state molecular structures and reactions directly determined by ultrafast electron diffraction. <i>Journal of Chemical Physics</i> , 2005 , 123, 221104	3.9	28
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