

Joseph S Melinger

List of Publications by Year in descending order

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95
papers

3,790
citations

117625

34
h-index

133252

59
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97
all docs

97
docs citations

97
times ranked

4177
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum-dot/dopamine bioconjugates function as redox coupled assemblies for in vitro and intracellular pH sensing. <i>Nature Materials</i> , 2010, 9, 676-684.	27.5	433
2	Intermolecular vibrational coherence in molecular liquids. <i>Journal of Raman Spectroscopy</i> , 1995, 26, 571-583.	2.5	179
3	Optical and Photophysical Properties of Light-Harvesting Phenylacetylene Monodendrons Based on Unsymmetrical Branching. <i>Journal of the American Chemical Society</i> , 2002, 124, 12002-12012.	13.7	145
4	High-Resolution Waveguide THz Spectroscopy of Biological Molecules. <i>Biophysical Journal</i> , 2008, 94, 1010-1020.	0.5	143
5	Assembling programmable FRET-based photonic networks using designer DNA scaffolds. <i>Nature Communications</i> , 2014, 5, 5615.	12.8	142
6	Enhanced Multiple Exciton Generation in Quasi-One-Dimensional Semiconductors. <i>Nano Letters</i> , 2011, 11, 3476-3481.	9.1	132
7	Self-Assembled Quantum Dot-Sensitized Multivalent DNA Photonic Wires. <i>Journal of the American Chemical Society</i> , 2010, 132, 18177-18190.	13.7	128
8	Resonance Energy Transfer Between Luminescent Quantum Dots and Diverse Fluorescent Protein Acceptors. <i>Journal of Physical Chemistry C</i> , 2009, 113, 18552-18561.	3.1	109
9	7 GHz resolution waveguide THz spectroscopy of explosives related solids showing new features. <i>Optics Express</i> , 2008, 16, 4094.	3.4	90
10	Backward second-harmonic generation in periodically poled bulk LiNbO ₃ . <i>Optics Letters</i> , 1997, 22, 862.	3.3	86
11	Pulsed laser-induced single event upset and charge collection measurements as a function of optical penetration depth. <i>Journal of Applied Physics</i> , 1998, 84, 690-703.	2.5	78
12	Line narrowing of terahertz vibrational modes for organic thin polycrystalline films within a parallel plate waveguide. <i>Applied Physics Letters</i> , 2006, 89, 251110.	3.3	75
13	The underlying terahertz vibrational spectrum of explosives solids. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	69
14	Ultrafast Dynamics of Electronic Excitations in a Light-Harvesting Phenylacetylene Dendrimer. <i>Journal of Physical Chemistry B</i> , 2001, 105, 5595-5598.	2.6	68
15	Concurrent Modulation of Quantum Dot Photoluminescence Using a Combination of Charge Transfer and Förster Resonance Energy Transfer: Competitive Quenching and Multiplexed Biosensing Modality. <i>Journal of the American Chemical Society</i> , 2017, 139, 363-372.	13.7	64
16	FRET from Multiple Pathways in Fluorophore-Labeled DNA. <i>ACS Photonics</i> , 2016, 3, 659-669.	6.6	63
17	Analysis of Intermolecular Coordinate Contributions to Third-Order Ultrafast Spectroscopy of Liquids in the Harmonic Oscillator Limit. <i>Journal of Physical Chemistry A</i> , 2001, 105, 7960-7972.	2.5	60
18	Optical Properties of Vibronically Coupled Cy3 Dimers on DNA Scaffolds. <i>Journal of Physical Chemistry B</i> , 2018, 122, 5020-5029.	2.6	58

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19	Photophysical Properties of Dioxolane-Substituted Pentacene Derivatives Dispersed in Tris(quinolin-8-olato)aluminum(III). <i>Journal of Physical Chemistry B</i> , 2006, 110, 7928-7937.	2.6	55
20	Complex Förster Energy Transfer Interactions between Semiconductor Quantum Dots and a Redox-Active Osmium Assembly. <i>ACS Nano</i> , 2012, 6, 5330-5347.	14.6	55
21	Resonance Energy Transfer in DNA Duplexes Labeled with Localized Dyes. <i>Journal of Physical Chemistry B</i> , 2014, 118, 14555-14565.	2.6	55
22	THz detection of small molecule vapors in the atmospheric transmission windows. <i>Optics Express</i> , 2012, 20, 6788.	3.4	51
23	Fabrication of terahertz metamaterials by laser printing. <i>Optics Letters</i> , 2010, 35, 4039.	3.3	50
24	High-Resolution Waveguide Terahertz Spectroscopy of Partially Oriented Organic Polycrystalline Films. <i>Journal of Physical Chemistry A</i> , 2007, 111, 10977-10987.	2.5	45
25	One-Dimensional Energy/Electron Transfer through a Helical Channel. <i>Journal of the American Chemical Society</i> , 2006, 128, 4532-4533.	13.7	44
26	Solid-State Density Functional Theory Investigation of the Terahertz Spectra of the Structural Isomers 1,2-Dicyanobenzene and 1,3-Dicyanobenzene. <i>Journal of Physical Chemistry A</i> , 2010, 114, 12513-12521.	2.5	44
27	Utilizing HomoFRET to Extend DNA-scaffolded Photonic Networks and Increase Light Harvesting Capability. <i>Advanced Optical Materials</i> , 2018, 6, 1700679.	7.3	44
28	Extending DNA-Based Molecular Photonic Wires with Homogeneous Förster Resonance Energy Transfer. <i>Advanced Optical Materials</i> , 2016, 4, 399-412.	7.3	43
29	Synthesis and Optical Properties of Unsymmetrical Conjugated Dendrimers Focally Anchored with Perylenes in Different Geometries. <i>Journal of Organic Chemistry</i> , 2003, 68, 6952-6958.	3.2	40
30	Terahertz mobility measurements on poly-3-hexylthiophene films: Device comparison, molecular weight, and film processing effects. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	37
31	Guided-wave terahertz spectroscopy of molecular solids [Invited]. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, A79.	2.1	37
32	A Probabilistic Analysis Technique Applied to a Radiation-Hardened-by-Design Voltage-Controlled Oscillator for Mixed-Signal Phase-Locked Loops. <i>IEEE Transactions on Nuclear Science</i> , 2008, 55, 3447-3455.	2.0	36
33	Electronic Spectra of the Nanostar Dendrimer: Theory and Experiment. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20702-20712.	3.1	35
34	A triangular three-dye DNA switch capable of reconfigurable molecular logic. <i>RSC Advances</i> , 2014, 4, 48860-48871.	3.6	35
35	Laser-Induced Current Transients in Silicon-Germanium HBTs. <i>IEEE Transactions on Nuclear Science</i> , 2008, 55, 2936-2942.	2.0	34
36	Design of Radiation-Hardened RF Low-Noise Amplifiers Using Inverse-Mode SiGe HBTs. <i>IEEE Transactions on Nuclear Science</i> , 2014, 61, 3218-3225.	2.0	34

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37	Bridging Lanthanide to Quantum Dot Energy Transfer with a Short-Lifetime Organic Dye. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2182-2188.	4.6	34
38	Ultrafast Excitation Transfer in Cy5 DNA Photonic Wires Displays Dye Conjugation and Excitation Energy Dependency. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4163-4172.	4.6	34
39	Light Harvesting Unsymmetrical Conjugated Dendrimers as Photosynthetic Mimics. <i>Photosynthesis Research</i> , 2006, 87, 115-131.	2.9	33
40	Supramolecular Device for Artificial Photosynthetic Mimics As Helix-Mediated Antenna/Reaction Center Ensemble. <i>Organic Letters</i> , 2008, 10, 1625-1628.	4.6	33
41	Femtosecond Laser Pulse Excitation of DNA-Labeled Gold Nanoparticles: Establishing a Quantitative Local Nanothermometer for Biological Applications. <i>ACS Nano</i> , 2020, 14, 8570-8583.	14.6	33
42	Synthesis and Optical Properties of Triphenylene-Based Dendritic Donor Perylene Diimide Acceptor Systems. <i>Journal of Physical Chemistry A</i> , 2011, 115, 1579-1592.	2.5	32
43	Ultrafast Dynamics of Gold-Based Nanocomposite Materials. <i>Journal of Physical Chemistry A</i> , 2003, 107, 3424-3431.	2.5	31
44	Evaluating Dye-Labeled DNA Dendrimers for Potential Applications in Molecular Biosensing. <i>ACS Sensors</i> , 2017, 2, 401-410.	7.8	31
45	A Dosimetry Methodology for Two-Photon Absorption Induced Single-Event Effects Measurements. <i>IEEE Transactions on Nuclear Science</i> , 2014, 61, 3416-3423.	2.0	30
46	Examining the Polyproline Nanoscopic Ruler in the Context of Quantum Dots. <i>Chemistry of Materials</i> , 2015, 27, 6222-6237.	6.7	30
47	Excitation Energy Transfer in Tris(8-hydroxyquinolino)aluminum Doped with a Pentacene Derivative. <i>Journal of Physical Chemistry B</i> , 2005, 109, 5456-5463.	2.6	29
48	DNA scaffold supports long-lived vibronic coherence in an indodicarbocyanine (Cy5) dimer. <i>Chemical Science</i> , 2020, 11, 8546-8557.	7.4	28
49	Temperature dependent characterization of terahertz vibrations of explosives and related threat materials. <i>Optics Express</i> , 2010, 18, 27238.	3.4	27
50	Investigation of Trap States in Mid-Wavelength Infrared Type-II Superlattices Using Time-Resolved Photoluminescence. <i>Journal of Electronic Materials</i> , 2013, 42, 3203-3210.	2.2	26
51	Can a DNA Origami Structure Constrain the Position and Orientation of an Attached Dye Molecule?. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1509-1522.	3.1	26
52	Delocalized Two-Exciton States in DNA Scaffolded Cyanine Dimers. <i>Journal of Physical Chemistry B</i> , 2020, 124, 8042-8049.	2.6	25
53	DNA Origami Chromophore Scaffold Exploiting HomoFRET Energy Transport to Create Molecular Photonic Wires. <i>ACS Applied Nano Materials</i> , 2020, 3, 3323-3336.	5.0	24
54	Relative Photon-to-Carrier Efficiencies of Alternating Nanolayers of Zinc Phthalocyanine and C60 Films Assessed by Time-Resolved Terahertz Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009, 113, 18842-18850.	3.1	23

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55	Expanding molecular logic capabilities in DNA-scaffolded multiFRET triads. RSC Advances, 2016, 6, 97587-97598.	3.6	23
56	Transient Response of Semiconductor Electronics to Ionizing Radiation. Recent Developments in Charge-Collection Measurement. IEEE Transactions on Nuclear Science, 2007, 54, 1010-1017.	2.0	22
57	Optical determination of the electronic coupling and intercalation geometry of thiazole orange homodimer in DNA. Journal of Chemical Physics, 2017, 147, 055101.	3.0	17
58	Synthesis of light-harvesting dendrimers focally anchored with crown ethers or terpyridine ligands. Organic and Biomolecular Chemistry, 2003, 1, 4465.	2.8	16
59	Simulation of Light-Matter Interaction and Two-Photon Absorption Induced Charge Deposition by Ultrashort Optical Pulses in Silicon. IEEE Transactions on Nuclear Science, 2014, 61, 3504-3511.	2.0	15
60	An Investigation of Single-Event Transients in C-SiGe HBT on SOI Current Mirror Circuits. IEEE Transactions on Nuclear Science, 2014, 61, 3193-3200.	2.0	15
61	On the Transient Response of a Complementary (nnp & formula formulatype="inline"><tex Tj ETQq1 1 0.784314 rgBT /Overload Transactions on Nuclear Science, 2014, 61, 3146-3153.	2.0	15
62	Tuning between Quenching and Energy Transfer in DNA-Templated Heterodimer Aggregates. Journal of Physical Chemistry Letters, 2022, 13, 2782-2791.	4.6	15
63	Dynamics of Energy Transfer of a Dioxolane-Substituted Pentacene Dispersed in 4,4-Bis[N-1-naphthyl-N-phenylamino]biphenyl. Journal of Physical Chemistry B, 2006, 110, 10606-10611.	2.6	14
64	Understanding Förster Resonance Energy Transfer in the Sheet Regime with DNA Brick-Based Dye Networks. ACS Nano, 2021, 15, 16452-16468.	14.6	14
65	Single-Event Upsets in Substrate-Etched CMOS SOI SRAMs Using Ultraviolet Optical Pulses With Sub-Micrometer Spot Size. IEEE Transactions on Nuclear Science, 2013, 60, 4184-4191.	2.0	13
66	Fluorescence and Energy Transfer in Dye-Labeled DNA Crystals. Journal of Physical Chemistry B, 2016, 120, 12287-12292.	2.6	13
67	Power of Aerogel Platforms to Explore Mesoscale Transport in Catalysis. ACS Applied Materials & Interfaces, 2020, 12, 41277-41287.	8.0	13
68	Synthesis and optical properties of conjugated dendrimers with unsymmetrical branching. Tetrahedron, 2003, 59, 5495-5506.	1.9	12
69	Aggregation effects on the optical properties of a light harvesting phenylacetylene dendrimer in non-polar solution. Journal of Luminescence, 2004, 106, 301-311.	3.1	12
70	Pulsed Laser Single-Event Effects in Highly Scaled CMOS Technologies in the Presence of Dense Metal Coverage. IEEE Transactions on Nuclear Science, 2008, 55, 3401-3406.	2.0	11
71	Synthesis and optical properties of triphenylene-based conjugated dendrons. Tetrahedron, 2009, 65, 1247-1256.	1.9	11
72	Substrate independence of THz vibrational modes of polycrystalline thin films of molecular solids in waveguide THz-TDS. Journal of Applied Physics, 2012, 111, 023105.	2.5	11

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73	Understanding Disorder, Vibronic Structure, and Delocalization in Electronically Coupled Dimers on DNA Duplexes. <i>Journal of Physical Chemistry A</i> , 2021, 125, 9632-9644.	2.5	11
74	Synthesis of Substituted Cy5 Phosphoramidite Derivatives and Their Incorporation into Oligonucleotides Using Automated DNA Synthesis. <i>ACS Omega</i> , 2022, 7, 11002-11016.	3.5	11
75	Understanding Self-Assembled Pseudoisocyanine Dye Aggregates in DNA Nanostructures and Their Exciton Relay Transfer Capabilities. <i>Journal of Physical Chemistry B</i> , 2022, 126, 110-122.	2.6	11
76	Comparison of Single and Two-Photon Absorption for Laser Characterization of Single-Event Upsets in SOI SRAMs. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 2968-2975.	2.0	10
77	High Resolution Waveguide Terahertz Time-Domain Spectroscopy. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2011, 32, 1267-1284.	2.2	9
78	Effect of Total Ionizing Dose on a Bulk 130 nm Ring Oscillator Operating at Ultra-Low Power. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 3262-3266.	2.0	7
79	Photoluminescence Properties of Conjugated Phenylacetylene Monodendrons in Thin Films. <i>Journal of Fluorescence</i> , 2004, 14, 105-112.	2.5	6
80	Waveguide terahertz time-domain spectroscopy of ammonium nitrate polycrystalline films. <i>Journal of Applied Physics</i> , 2012, 111, 093103.	2.5	6
81	Transient Optical and Terahertz Spectroscopy of Nanoscale Films of RuO ₂ . <i>Plasmonics</i> , 2017, 12, 743-750.	3.4	6
82	Data-Driven and Multiscale Modeling of DNA-Templated Dye Aggregates. <i>Molecules</i> , 2022, 27, 3456.	3.8	6
83	Förster Resonance Energy Transfer in Linear DNA Multifluorophore Photonic Wires: Comparing Dual versus Split Rail Building Block Designs. <i>Advanced Optical Materials</i> , 2021, 9, 2100884.	7.3	5
84	Laser Verification of On-Chip Charge-Collection Measurement Circuit. <i>IEEE Transactions on Nuclear Science</i> , 2008, 55, 3309-3313.	2.0	4
85	Mechanistic Understanding of DNA Denaturation in Nanoscale Thermal Gradients Created by Femtosecond Excitation of Gold Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 3404-3417.	8.0	4
86	Resonance Energy Transfer: Utilizing HomoFRET to Extend DNA-scaffolded Photonic Networks and Increase Light Harvesting Capability (<i>Advanced Optical Materials</i> 1/2018). <i>Advanced Optical Materials</i> , 2018, 6, 1870005.	7.3	1
87	Exploring the Holliday Junction in a DNA nanostructure for creating excitonic dimers. , 2021, , .		1
88	VIBRATIONAL POPULATION CONTROL IN LIQUID-PHASE METAL CARBONYLS. , 2002, , .		1
89	High resolution THz spectroscopy of organic and bio-organic molecules. , 2007, , .		0
90	Photoconductivity of organic semiconductor polymers studied by time-resolved THz-TDS. , 2007, , .		0

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91	Intrinsic Photoconductivity of P3HT films Measured by Time-Resolved THz spectroscopy. , 2007, , .		0
92	Narrow-Line THz Absorption Spectra of Deoxycytidine and D-Glucose Films in Parallel Plate Waveguides. , 2007, , .		0
93	Intrinsic photoconductivity of P3HT films measured by time-resolved THz spectroscopy. , 2007, , .		0
94	High resolution THz spectroscopy of ammonium nitrate and potassium nitrate crystalline films. , 2011, , .		0
95	Remote THz Monitoring of an Evolving Gas-Phase Mixture. , 2013, , .		0