

# Matthew D Krzyaniak

## List of Publications by Year in descending order

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71  
papers

2,487  
citations

172457

29  
h-index

223800

46  
g-index

72  
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72  
docs citations

72  
times ranked

3075  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanistic Study of Electron Spin Polarization Transfer in Covalent Donor–Acceptor-Radical Systems. <i>Applied Magnetic Resonance</i> , 2022, 53, 949-961.	1.2	8
2	Using Molecular Design to Enhance the Coherence Time of Quintet Multiexcitons Generated by Singlet Fission in Single Crystals. <i>Journal of the American Chemical Society</i> , 2022, 144, 2276-2283.	13.7	35
3	Two-Photon Absorption in Electron Donor–Acceptor Dyads and Triads Using Classical and Entangled Photons: Potential Systems for Photon-to-Spin Quantum Transduction. <i>Journal of Physical Chemistry C</i> , 2022, 126, 6334-6343.	3.1	6
4	Effect of the Time Delay between Spin State Preparation and Measurement on Electron Spin Teleportation in a Covalent Donor–Acceptor–Radical System. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 156-160.	4.6	0
5	An Electrically Conductive Tetrathiafulvalene-Based Hydrogen-Bonded Organic Framework. , 2022, 4, 128-135.		34
6	Mechanistic Investigation of Enhanced Catalytic Selectivity toward Alcohol Oxidation with Ce Oxysulfate Clusters. <i>Journal of the American Chemical Society</i> , 2022, 144, 12092-12101.	13.7	6
7	Discrete Open-Shell Tris(bipyridinium radical cationic) Inclusion Complexes in the Solid State. <i>Journal of the American Chemical Society</i> , 2021, 143, 163-175.	13.7	15
8	Controlling the Dynamics of Three Electron Spin Qubits in a Donor–Acceptor–Radical Molecule Using Dielectric Environment Changes. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2213-2218.	4.6	9
9	Interaction of Photogenerated Spin Qubit Pairs with a Third Electron Spin in DNA Hairpins. <i>Journal of the American Chemical Society</i> , 2021, 143, 4625-4632.	13.7	12
10	Spectral Addressability in a Modular Two Qubit System. <i>Journal of the American Chemical Society</i> , 2021, 143, 8069-8077.	13.7	39
11	Charge Transfer and Spin Dynamics in a Zinc Porphyrin Donor Covalently Linked to One or Two Naphthalenediimide Acceptors. <i>Journal of Physical Chemistry A</i> , 2021, 125, 825-834.	2.5	6
12	Interstitial Nature of Mn <sup>2+</sup> Doping in 2D Perovskites. <i>ACS Nano</i> , 2021, 15, 20550-20561.	14.6	19
13	CNOT gate operation on a photogenerated molecular electron spin-qubit pair. <i>Journal of Chemical Physics</i> , 2020, 152, 014503.	3.0	45
14	Insights into the Enhanced Catalytic Activity of Cytochrome c When Encapsulated in a Metal–Organic Framework. <i>Journal of the American Chemical Society</i> , 2020, 142, 18576-18582.	13.7	73
15	Using Photoexcited Core/Shell Quantum Dots To Spin Polarize Appended Radical Qubits. <i>Journal of the American Chemical Society</i> , 2020, 142, 13590-13597.	13.7	19
16	Spin and Phonon Design in Modular Arrays of Molecular Qubits. <i>Chemistry of Materials</i> , 2020, 32, 10200-10206.	6.7	37
17	Supramolecular Porous Assemblies of Atomically Precise Catalytically Active Cerium-Based Clusters. <i>Chemistry of Materials</i> , 2020, 32, 8522-8529.	6.7	23
18	Spin-Polarized Molecular Triplet States as Qubits: Phosphorus Hyperfine Coupling in the Triplet State of Benzoisophosphinoline. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7569-7574.	4.6	7

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19	Stabilization of Photocatalytically Active Uranyl Species in a Uranyl-Organic Framework for Heterogeneous Alkane Fluorination Driven by Visible Light. <i>Inorganic Chemistry</i> , 2020, 59, 16795-16798.	4.0	26
20	Metalated Porphyrin Stable Free Radicals: Exploration of Electron Spin Communication and Dynamics. <i>Journal of Physical Chemistry A</i> , 2020, 124, 6168-6176.	2.5	6
21	Selectively Addressable Photogenerated Spin Qubit Pairs in DNA Hairpins. <i>Journal of the American Chemical Society</i> , 2020, 142, 3346-3350.	13.7	24
22	Spin Dynamics of Quintet and Triplet States Resulting from Singlet Fission in Oriented Terrylenediimide and Quaterrylenediimide Films. <i>Journal of Physical Chemistry C</i> , 2020, 124, 9822-9833.	3.1	19
23	Spin-Selective Photoinduced Electron Transfer within Naphthalenediimide Diradicals. <i>Journal of Physical Chemistry B</i> , 2019, 123, 7731-7739.	2.6	10
24	Competition between Singlet Fission and Spin-Orbit-Induced Intersystem Crossing in Anthanthrene and Anthanthrone Derivatives. <i>ChemPlusChem</i> , 2019, 84, 1432-1438.	2.8	12
25	Supramolecular Tessellations by a Rigid Naphthalene Diimide Triangle. <i>Journal of the American Chemical Society</i> , 2019, 141, 17783-17795.	13.7	52
26	Time-Resolved EPR Study of H <sub>2</sub> Reductive Elimination from the Photoexcited Nitrogenase Janus E <sub>4</sub> (4H) Intermediate. <i>Journal of Physical Chemistry B</i> , 2019, 123, 8823-8828.	2.6	12
27	Combining Intra- and Intermolecular Charge Transfer with Polycationic Cyclophanes To Design 2D Tessellations. <i>Journal of the American Chemical Society</i> , 2019, 141, 18727-18739.	13.7	36
28	Photodriven quantum teleportation of an electron spin state in a covalent donor-acceptor radical system. <i>Nature Chemistry</i> , 2019, 11, 981-986.	13.6	83
29	A concentrated array of copper porphyrin candidate qubits. <i>Chemical Science</i> , 2019, 10, 1702-1708.	7.4	58
30	Metal-ligand covalency enables room temperature molecular qubit candidates. <i>Chemical Science</i> , 2019, 10, 6707-6714.	7.4	50
31	Vanadium Catalyst on Isostructural Transition Metal, Lanthanide, and Actinide Based Metal-Organic Frameworks for Alcohol Oxidation. <i>Journal of the American Chemical Society</i> , 2019, 141, 8306-8314.	13.7	112
32	Varying the Interpentacene Electronic Coupling to Tune Singlet Fission. <i>Journal of the American Chemical Society</i> , 2019, 141, 6191-6203.	13.7	66
33	Quintet-triplet mixing determines the fate of the multiexciton state produced by singlet fission in a terrylenediimide dimer at room temperature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8178-8183.	7.1	73
34	Formation and Electronic Structure of an Atypical Cu <sub>A</sub> Site. <i>Journal of the American Chemical Society</i> , 2019, 141, 4678-4686.	13.7	18
35	Influence of the heavy-atom effect on singlet fission: a study of platinum-bridged pentacene dimers. <i>Chemical Science</i> , 2019, 10, 11130-11140.	7.4	25
36	Photogenerated Spin-Entangled Qubit (Radical) Pairs in DNA Hairpins: Observation of Spin Delocalization and Coherence. <i>Journal of the American Chemical Society</i> , 2019, 141, 2152-2160.	13.7	33

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37	Discrete Dimers of Redox-Active and Fluorescent Perylene Diimide-Based Rigid Isosceles Triangles in the Solid State. <i>Journal of the American Chemical Society</i> , 2019, 141, 1290-1303.	13.7	87
38	Effect of Redox "Non-Innocent" Linker on the Catalytic Activity of Copper-Catecholate-Decorated Metal-Organic Frameworks. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 635-641.	8.0	52
39	Effect of Magnetic Coupling on Water Proton Relaxivity in a Series of Transition Metal Gd <sup>III</sup> Complexes. <i>Inorganic Chemistry</i> , 2018, 57, 5810-5819.	4.0	11
40	X-Shaped Oligomeric Pyromellitimide Polyradicals. <i>Journal of the American Chemical Society</i> , 2018, 140, 515-523.	13.7	15
41	Effect of Electron "Nuclear Hyperfine Interactions on Multiple-Quantum Coherences in Photogenerated Covalent Radical (Qubit) Pairs. <i>Journal of Physical Chemistry A</i> , 2018, 122, 9392-9402.	2.5	17
42	Covalent Radical Pairs as Spin Qubits: Influence of Rapid Electron Motion between Two Equivalent Sites on Spin Coherence. <i>Journal of the American Chemical Society</i> , 2018, 140, 13011-13021.	13.7	29
43	Octacyanomethylate qubit candidates. <i>Dalton Transactions</i> , 2018, 47, 11744-11748.	3.3	8
44	Evidence for Charge-Transfer Mediation in the Primary Events of Singlet Fission in a Weakly Coupled Pentacene Dimer. <i>Chem</i> , 2018, 4, 1092-1111.	11.7	105
45	Synthetic Approach To Determine the Effect of Nuclear Spin Distance on Electronic Spin Decoherence. <i>Journal of the American Chemical Society</i> , 2017, 139, 3196-3201.	13.7	72
46	Electron Hopping and Charge Separation within a Naphthalene-1,4:5,8-bis(dicarboximide) Chiral Covalent Organic Cage. <i>Journal of the American Chemical Society</i> , 2017, 139, 3348-3351.	13.7	53
47	Zero Quantum Coherence in a Series of Covalent Spin-Correlated Radical Pairs. <i>Journal of Physical Chemistry A</i> , 2017, 121, 2241-2252.	2.5	21
48	Spin Frustration in the Triradical Trianion of a Naphthalenediimide Molecular Triangle. <i>Journal of the American Chemical Society</i> , 2017, 139, 2948-2951.	13.7	60
49	A Boat-Shaped Tetracationic Macrocyclic with a Semiconducting Organic Framework. <i>Angewandte Chemie</i> , 2017, 129, 5889-5894.	2.0	8
50	A Boat-Shaped Tetracationic Macrocyclic with a Semiconducting Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5795-5800.	13.8	27
51	Unified model for singlet fission within a non-conjugated covalent pentacene dimer. <i>Nature Communications</i> , 2017, 8, 15171.	12.8	176
52	Spin Polarization Transfer from a Photogenerated Radical Ion Pair to a Stable Radical Controlled by Charge Recombination. <i>Journal of Physical Chemistry A</i> , 2017, 121, 4455-4463.	2.5	17
53	Spin-Selective Photoreduction of a Stable Radical within a Covalent Donor "Acceptor" Radical Triad. <i>Journal of the American Chemical Society</i> , 2017, 139, 15660-15663.	13.7	33
54	Probing Nuclear Spin Effects on Electronic Spin Coherence via EPR Measurements of Vanadium(IV) Complexes. <i>Inorganic Chemistry</i> , 2017, 56, 8106-8113.	4.0	37

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55	The tetrahydrobiopterin radical interacting with high- and low-spin heme in neuronal nitric oxide synthase – A new indicator of the extent of NOS coupling. <i>Free Radical Biology and Medicine</i> , 2016, 101, 367-377.	2.9	5
56	Chiral Redox-Active Isosceles Triangles. <i>Journal of the American Chemical Society</i> , 2016, 138, 5968-5977.	13.7	62
57	Picosecond Control of Photogenerated Radical Pair Lifetimes Using a Stable Third Radical. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2841-2853.	2.5	27
58	Ultrafast Two-Electron Transfer in a CdS Quantum Dot–Extended-Viologen Cyclophane Complex. <i>Journal of the American Chemical Society</i> , 2016, 138, 6163-6170.	13.7	42
59	Unexpected suppression of spin–lattice relaxation via high magnetic field in a high-spin iron(III) complex. <i>Chemical Communications</i> , 2016, 52, 10175-10178.	4.1	14
60	Long Coherence Times in Nuclear Spin-Free Vanadyl Qubits. <i>Journal of the American Chemical Society</i> , 2016, 138, 14678-14685.	13.7	118
61	Influence of Constitution and Charge on Radical Pairing Interactions in Tris-radical Tricationic Complexes. <i>Journal of the American Chemical Society</i> , 2016, 138, 8288-8300.	13.7	29
62	Photoinduced Charge and Energy Transfer within <i>meta</i> - and <i>para</i> -Linked Chlorophyll <i>a</i> -Perylene-3,4:9,10-bis(dicarboximide) Donor–Acceptor Dyads. <i>Journal of Physical Chemistry B</i> , 2016, 120, 756-765.	2.6	24
63	Charge and Spin Transport in an Organic Molecular Square. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11971-11977.	13.8	35
64	Energy and Electron Transfer Dynamics within a Series of Perylene Diimide/Cyclophane Systems. <i>Journal of the American Chemical Society</i> , 2015, 137, 15299-15307.	13.7	64
65	Large Dipolar Spin–Spin Interaction in a Photogenerated U-Shaped Triradical. <i>Journal of Physical Chemistry A</i> , 2015, 119, 8040-8048.	2.5	8
66	Fast photo-driven electron spin coherence transfer: the effect of electron-nuclear hyperfine coupling on coherence dephasing. <i>Journal of Materials Chemistry C</i> , 2015, 3, 7962-7967.	5.5	22
67	Characterization of Water Coordination to Ferrous Nitrosyl Complexes with <i>fac</i> -N <sub>2</sub> O, <i>cis</i> -N <sub>2</sub> O <sub>2</sub> , and N <sub>2</sub> O <sub>3</sub> Donor Ligands. <i>Inorganic Chemistry</i> , 2015, 54, 6486-6497.	4.0	8
68	Photogenerated Quartet State Formation in a Compact Ring-Fused Perylene-Nitroxide. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13560-13569.	2.6	48
69	DFT and ENDOR Study of Bixin Radical Cations and Neutral Radicals on Silica–Alumina. <i>Journal of Physical Chemistry B</i> , 2015, 119, 7170-7179.	2.6	8
70	A Caged, Destabilized, Free Radical Intermediate in the Q–Cycle. <i>ChemBioChem</i> , 2013, 14, 1745-1753.	2.6	18
71	EPR Study of the Astaxanthin <i>n</i> -Octanoic Acid Monoester and Diester Radicals on Silica–Alumina. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13200-13210.	2.6	15