

# Martin Dressel

## List of Publications by Year in descending order

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121  
papers

6,770  
citations

41344

49  
h-index

60623

81  
g-index

122  
all docs

122  
docs citations

122  
times ranked

7271  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrodynamics of correlated electron materials. <i>Reviews of Modern Physics</i> , 2011, 83, 471-541.	45.6	633
2	Polyoxometalates: Fascinating structures, unique magnetic properties. <i>Coordination Chemistry Reviews</i> , 2009, 253, 2315-2327.	18.8	508
3	Microwave cavity perturbation technique: Part I: Principles. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 1993, 14, 2423-2457.	0.6	219
4	On-chain electrodynamics of metallic(TMTSF) <sub>2</sub> Xsalts: Observation of Tomonaga-Luttinger liquid response. <i>Physical Review B</i> , 1998, 58, 1261-1271.	3.2	197
5	Fast Dynamics of Glass-Forming Glycerol Studied by Dielectric Spectroscopy. <i>Physical Review Letters</i> , 1996, 77, 318-321.	7.8	189
6	Circular-Polarization-Dependent Study of the Microwave Photoconductivity in a Two-Dimensional Electron System. <i>Physical Review Letters</i> , 2005, 95, 116804.	7.8	186
7	Direct Observation of Quantum Coherence in Single-Molecule Magnets. <i>Physical Review Letters</i> , 2008, 101, 147203.	7.8	178
8	Optical Properties of Two-Dimensional Organic Conductors: Signatures of Charge Ordering and Correlation Effects. <i>Chemical Reviews</i> , 2004, 104, 5689-5716.	47.7	170
9	Terahertz BWO-Spectroscopy. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2005, 26, 1217-1240.	0.6	152
10	Universal sheet resistance and revised phase diagram of the cuprate high-temperature superconductors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 12235-12240.	7.1	142
11	Extending the {(Mo)Mo <sub>5</sub> } <sub>12</sub> M <sub>30</sub> Capsule Keplerate Sequence: A {Cr <sub>30</sub> } Cluster of S=3/2 Metal Centers with a {Na(H <sub>2</sub> O) <sub>12</sub> } Encapsulate. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 6106-6110.	13.8	141
12	How Holes Can Obscure the View: Suppressed Transmission through an Ultrathin Metal Film by a Subwavelength Hole Array. <i>Physical Review Letters</i> , 2009, 103, 203901.	7.8	139
13	The Higgs mode in disordered superconductors close to a quantum phase transition. <i>Nature Physics</i> , 2015, 11, 188-192.	16.7	137
14	Low-energy electrodynamics of SmB <sub>6</sub> . <i>Physical Review B</i> , 1999, 59, 1808-1814.	3.2	130
15	Highly tunable photonic crystal filter for the terahertz range. <i>Optics Letters</i> , 2005, 30, 549.	3.3	127
16	Deviations from Drude Response in Low-Dimensional Metals: Electrodynamics of the Metallic State of (TMTSF) <sub>2</sub> PF <sub>6</sub> . <i>Physical Review Letters</i> , 1996, 77, 398-401.	7.8	115
17	Kramers-Kronig-consistent optical functions of anisotropic crystals: generalized spectroscopic ellipsometry on pentacene. <i>Optics Express</i> , 2008, 16, 19770.	3.4	114
18	Electron spin resonance studies on the organic linear-chain compounds(TMTCF) <sub>2</sub> X <sup>+</sup> (C=S,Se;X=PF <sub>6</sub> ,AsF <sub>6</sub> ,ClO <sub>4</sub> ,Br). <i>Physical Review B</i> , 2000, 61, 511-521.	3.2	111

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19	The classical and quantum dynamics of molecular spins on graphene. <i>Nature Materials</i> , 2016, 15, 164-168.	27.5	109
20	Metal-Oxide-Based Nucleation Process under Confined Conditions: Two Mixed-Valence V6-Type Aggregates Closing the W48 Wheel-Type Cluster Cavities. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4477-4480.	13.8	106
21	Microwave cavity perturbation technique: Part II: Experimental scheme. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 1993, 14, 2459-2487.	0.6	104
22	Electrodynamics of the organic superconductors $\hat{\rho}$ -(BEDT-TTF) $_2$ Cu(NCS) $_2$ and $\hat{\rho}$ -(BEDT-TTF) $_2$ Cu[N(CN) $_2$ ]Br. <i>Physical Review B</i> , 1994, 50, 13603-13615.	3.2	102
23	Direct observation of the superconducting energy gap developing in the conductivity spectra of niobium. <i>Physical Review B</i> , 1998, 57, 14416-14421.	3.2	100
24	Evidence for spin-charge separation in quasi-one-dimensional organic conductors. <i>Nature</i> , 2002, 418, 614-617.	27.8	100
25	Far-infrared spectra of amino acids. <i>Chemical Physics</i> , 2005, 316, 61-71.	1.9	100
26	The spin-ladder and spin-chain system (La,Y,Sr,Ca) $_{14}$ Cu $_{24}$ O $_{41}$ : Electronic phases, charge and spin dynamics. <i>Physics Reports</i> , 2006, 428, 169-258.	25.6	96
27	Extremely slow Drude relaxation of correlated electrons. <i>Nature</i> , 2005, 438, 1135-1137.	27.8	95
28	Frequency-domain magnetic resonance spectroscopy of molecular magnetic materials. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 3837-3843.	2.8	92
29	Microwave cavity perturbation technique: Part III: Applications. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 1993, 14, 2489-2517.	0.6	84
30	Direct Observation of the Spin-Density-Wave Gap in (TMTSF) $_2$ PF $_6$ . <i>Physical Review Letters</i> , 1996, 76, 3838-3841.	7.8	77
31	Ordering phenomena in quasi-one-dimensional organic conductors. <i>Die Naturwissenschaften</i> , 2007, 94, 527-541.	1.6	72
32	Flat Optical Conductivity in ZrSiS due to Two-Dimensional Dirac Bands. <i>Physical Review Letters</i> , 2017, 119, 187401.	7.8	68
33	Comprehensive Optical Investigations of Charge Order in Organic Chain Compounds (TMTTF) $_2$ X. <i>Crystals</i> , 2012, 2, 528-578.	2.2	65
34	Proximity of the Layered Organic Conductors $\hat{\rho}$ -(BEDT-TTF) $_2$ MHg(SCN) $_4$ (M=K,NH $_4$ ) to a Charge-Ordering Transition. <i>Physical Review Letters</i> , 2003, 90, 167002.	7.8	64
35	Suppression of the Charge-Density-Wave State in Sr $_{14}$ Cu $_{24}$ O $_{41}$ by Calcium Doping. <i>Physical Review Letters</i> , 2003, 90, 257002.	7.8	62
36	Verifying the Drude response. <i>Annalen Der Physik</i> , 2006, 15, 535-544.	2.4	62

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37	Optical Evidence of Anderson-Mott Localization in FeSi. Europhysics Letters, 1994, 28, 341-346.	2.0	61
38	Quantum spin liquids unveil the genuine Mott state. Nature Materials, 2018, 17, 773-777.	27.5	61
39	Fluctuation effects on the electrostatics of quasi-one-dimensional conductors above the charge-density-wave transition. Physical Review B, 1995, 52, 5643-5652.	3.2	60
40	$\langle \text{EuFe}_2 \rangle \langle \text{As} \rangle \langle \hat{\alpha} \rangle$ Pressure-Dependent Relaxation in the Photoexcited Mott Insulator $\langle \text{EuFe}_2 \rangle \langle \text{As} \rangle \langle \hat{\alpha} \rangle$	7.8	60
41	$\langle \text{ET} \rangle \langle \hat{\alpha} \rangle \langle \text{TCNQ} \rangle$ Influence of Hopping and Correlations on Quasiparticle Recombination Rates. Physical Review Letters, 2014, 112, 117801.	7.8	58
42	Periodic Nanostructures: Spatial Dispersion Mimics Chirality. Physical Review Letters, 2011, 106, 185501.	7.8	56
43	Polar phonons and central mode in antiferroelectric PbZrO <sub>3</sub> ceramics. Journal of Physics Condensed Matter, 2001, 13, 2677-2689.	1.8	55
44	Frequency-independent dielectric losses (1/fnoise) in PLZT relaxors at low temperatures. Journal of Physics Condensed Matter, 2003, 15, 6017-6030.	1.8	54
45	Quantum Behavior of Water Molecules Confined to Nanocavities in Gemstones. Journal of Physical Chemistry Letters, 2013, 4, 2015-2020.	4.6	54
46	Quantum criticality in organic conductors? Fermi liquid versus non-Fermi-liquid behaviour. Journal of Physics Condensed Matter, 2011, 23, 293201.	1.8	53
47	Nature of Heavy Quasiparticles in Magnetically Ordered Heavy Fermions UPd <sub>2</sub> Al <sub>3</sub> and UPt <sub>3</sub> . Physical Review Letters, 2002, 88, 186404.	7.8	52
48	Manifestation of multiband optical properties of MgB <sub>2</sub> . Solid State Communications, 2002, 121, 479-484.	1.9	52
49	Electrodynamics of the Superconducting State in Ultra-Thin Films at THz Frequencies. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 269-280.	3.1	52
50	Field and frequency dependent transport in the two-dimensional organic conductor $\hat{I}_{\pm}$ -(BEDT-TTF) <sub>2</sub> I <sub>3</sub> . Journal De Physique, I, 1994, 4, 579-594.	1.2	46
51	Infrared spectroscopy on the charge accumulation layer in rubrene single crystals. Applied Physics Letters, 2006, 89, 182103.	3.3	45
52	Transverse Josephson Plasma Mode in T <sub>c</sub> * Cuprate Superconductors. Physical Review Letters, 2001, 86, 4140-4143.	7.8	43
53	Microwave spectroscopy on heavy $\hat{\alpha}$ fermion systems: Probing the dynamics of charges and magnetic moments. Physica Status Solidi (B): Basic Research, 2013, 250, 439-449.	1.5	41
54	Spin-charge separation in quasi one-dimensional organic conductors. Die Naturwissenschaften, 2003, 90, 337-344.	1.6	40

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55	Gapped magnetic ground state in quantum spin liquid candidate $\hat{\Gamma}^2$ -(BEDT-TTF) <sub>2</sub> Cu <sub>3</sub> (CN) <sub>3</sub> . Science, 2021, 372, 276-279.	12.6	38
56	Studies in fiber guided excimer laser surgery for cutting and drilling bone and meniscus. Lasers in Surgery and Medicine, 1991, 11, 569-579.	2.1	35
57	Charge-density-wave paraconductivity in K <sub>0.3</sub> MoO <sub>3</sub> . Physical Review Letters, 1994, 73, 308-311.	7.8	35
58	Molecular quantum materials: electronic phases and charge dynamics in two-dimensional organic solids. Advances in Physics, 2020, 69, 1-120.	14.4	35
59	Rise and fall of Landau's quasiparticles while approaching the Mott transition. Nature Communications, 2021, 12, 1571.	12.8	25
60	Internal strain tunes electronic correlations on the nanoscale. Science Advances, 2018, 4, eaau9123.	10.3	24
61	Sub-lattice of Jahn-Teller centers in hexaferrite crystal. Scientific Reports, 2020, 10, 7076.	3.3	24
62	Low-temperature dielectric anomaly arising from electronic phase separation at the Mott insulator-metal transition. Npj Quantum Materials, 2021, 6, .	5.2	24
63	Influence of chemical substitution on broadband dielectric response of barium-lead M-type hexaferrite. New Journal of Physics, 2019, 21, 063016.	2.9	23
64	Anomalously High Proton Conduction of Interfacial Water. Journal of Physical Chemistry Letters, 2020, 11, 3623-3628.	4.6	21
65	Optical conductivity of multifold fermions: The case of RhSi. Physical Review Research, 2020, 2, .	3.6	21
66	Electrodynamics of quantum spin liquids. Journal of Physics Condensed Matter, 2018, 30, 203001.	1.8	19
67	Nodal Semimetals: A Survey on Optical Conductivity. Physica Status Solidi (B): Basic Research, 2021, 258, 2000027.	1.5	18
68	Structural and Electronic Properties of (TMTTF) <sub>2</sub> X Salts with Tetrahedral Anions. Crystals, 2018, 8, 121.	2.2	17
69	Electrodynamics in Organic Dimer Insulators Close to Mott Critical Point. Crystals, 2018, 8, 190.	2.2	17
70	Two Linear Regimes in Optical Conductivity of a Type-I Weyl Semimetal: The Case of Elemental Tellurium. Physical Review Letters, 2020, 124, 136402.	7.8	17
71	Disentangling the conductivity spectra of two-dimensional organic conductors. Physica B: Condensed Matter, 2009, 404, 541-544.	2.7	16
72	Optical signatures of energy gap in correlated Dirac fermions. Npj Quantum Materials, 2019, 4, .	5.2	16

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73	Electronic and magnetic studies of. Physica B: Condensed Matter, 2012, 407, 1689-1691.	2.7	15
74	Infrared Investigations of the Neutral-Ionic Phase Transition in TTF-CA and Its Dynamics. Crystals, 2017, 7, 17.	2.2	15
75	ESR studies on the spin-liquid candidate $\hat{\rho}$ -(BEDT-TTF) <sub>2</sub> Cu <sub>2</sub> (CN) <sub>3</sub> : Anomalous response below T=8 K. Physica B: Condensed Matter, 2015, 460, 211-213.	2.7	12
76	Phase coexistence at the first-order Mott transition revealed by pressure-dependent dielectric spectroscopy of $\langle \text{mml}:\text{math} \rangle$		

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91	Torque-Detected Electron Spin Resonance as a Tool to Investigate Magnetic Anisotropy in Molecular Nanomagnets. Magnetochemistry, 2016, 2, 25.	2.4	5
92	Mueller matrix metrology: Depolarization reveals size distribution. Applied Physics Letters, 2019, 115, .	3.3	5
93	Double Layer Conducting Salts: (CNB-EDT-TTF) <sub>4</sub> X, X = ClO <sub>4</sub> <sup>-</sup> , ReO <sub>4</sub> <sup>-</sup> , and SbF <sub>6</sub> <sup>-</sup> ; Electrical Transport and Infrared Properties. Crystals, 2019, 9, 608.	2.2	5
94	Molecular Dynamics at Electrical- and Optical-Driven Phase Transitions: Time-Resolved Infrared Studies Using Fourier-Transform Spectrometers. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 104-123.	2.2	4
95	Characterizing dielectric properties of ultra-thin films using superconducting coplanar microwave resonators. Review of Scientific Instruments, 2019, 90, 114701.	1.3	4
96	Deuteration Effects on the Transport Properties of (TMTTF) <sub>2</sub> X Salts. Crystals, 2020, 10, 1085.	2.2	4
97	Cryogenic frequency-domain electron spin resonance spectrometer based on coplanar waveguides and field modulation. Review of Scientific Instruments, 2020, 91, 025106.	1.3	4
98	Pressure-Induced Neutral-Ionic Phase Transition in the Mixed-Stack 2:1 Charge-Transfer Complex (EDT-TTF) <sub>2</sub> TCNQF. Journal of Physical Chemistry C, 2020, 124, 5552-5558.	3.1	4
99	Pressure-Tuned Superconducting Dome in Chemically-Substituted $\hat{\rho}$ -(BEDT-TTF) <sub>2</sub> Cu <sub>2</sub> (CN) <sub>3</sub> . Crystals, 2021, 11, 817.	2.2	4
100	Interacting electron spins in $\hat{\rho}$ N Physical Review B, 2020, 102, .	3.2	4
101	Evidence of charge ordering in the electronic spectra of two-dimensional organic conductors. Physica B: Condensed Matter, 2005, 359-361, 454-456.	2.7	3
102	Light-Induced Current Oscillations in the Charge-Ordered State of (TMTTF) <sub>2</sub> SbF <sub>6</sub> . Crystals, 2017, 7, 278.	2.2	3
103	Role of non-linear effects and standing waves in microwave spectroscopy: Corbino measurements on superconductors and VO <sub>2</sub> . Review of Scientific Instruments, 2019, 90, 034704.	1.3	3
104	Wavelength dependence of the second harmonic generation of percolating gold thin films. Journal of Applied Physics, 2020, 127, 163101.	2.5	3
105	Infrared Optical Conductivity of Bulk Bi <sub>2</sub> Te <sub>2</sub> Se. Crystals, 2020, 10, 553.	2.2	3
106	Charge correlations and their photoinduced dynamics in charge-ordered organic ferroelectrics. Physical Review Research, 2021, 3, .	3.6	3
107	Distinction of charge transfer and Frenkel excitons in pentacene traced via infrared spectroscopy. Journal of Materials Chemistry C, 2022, 10, 5582-5589.	5.5	3
108	Infrared conductivity of the organic conductor $\hat{\rho}$ -(BEDT-TTF) <sub>2</sub> KHg(SCN) <sub>4</sub> . Synthetic Metals, 2003, 133-134, 91-94.	3.9	2

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109	Loss of coherence in $\text{Ce}_1\text{La}\text{Pd}_3$ studied by high-frequency transport. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E105-E106.	2.3	2
110	Tuning the second harmonic generation of self-generated metallic islands. AIP Advances, 2018, 8, 075012.	1.3	2
111	Microwave probing of bulk dielectrics using superconducting coplanar resonators in distant-flip-chip geometry. Review of Scientific Instruments, 2020, 91, 054702.	1.3	2
112	Fractional Power-Law Intraband Optical Conductivity in the Low-Dimensional Dirac Material $\text{CaMnBi}_2$ . Crystals, 2021, 11, 428.	2.2	2
113	Dielectric Anomaly and Charge Fluctuations in the Non-Magnetic Dimer Mott Insulator $\text{A}_2\text{(BEDT-STF)}_2\text{GaCl}_4$ . Crystals, 2021, 11, 1031.	2.2	2
114	Multi-Center Magnon Excitations Open the Entire Brillouin Zone to Terahertz Magnetometry of Quantum Magnets. Advanced Quantum Technologies, 0, , 2200023.	3.9	2
115	Tuning Charge Order in $(\text{TMTTF})_2\text{X}$ by Partial Anion Substitution. Crystals, 2021, 11, 1545.	2.2	2
116	Near-infrared optical investigations of snow, ice, and water layers on diffuse reflecting surfaces. Review of Scientific Instruments, 2018, 89, 123106.	1.3	1
117	Hertz-To-Terahertz Dielectric Response of Nanoconfined Water Molecules. Proceedings (mdpi), 2019, 26, .	0.2	1
118	<i>In Vitro</i> Comparison of Two Electromagnetic Shockwave Generators: Low-Pressure Wide Focus vs High-Pressure Small Focus – Impact on Initial Stone Fragmentation and Final Stone Comminution. Journal of Endourology, 2022, 36, 266-272.	2.1	1
119	Charge localization in 1D tetramerized organic conductors: the special case of $(\text{tTTF})_2\text{ClO}_4$ . Journal of Physics Condensed Matter, 2019, 31, 155601.	1.8	0
120	Charge and anion ordering in the quasi-one-dimensional organic conductor $(\text{TMTTF})_2\text{NO}_3$ . Physical Review B, 2021, 103, .	3.2	0
121	Metal-insulator phase transition in the $\text{A}_2\text{(BEDT-STF)}_2\text{GaCl}_4$ [2,6-anthracene-bis(sulfonate)] $\text{A}_2\text{(BEDT-STF)}_2\text{GaCl}_4$ . Physical Review B, 2021, 104, .	3.2	0