

# Eric Freysz

## List of Publications by Year in descending order

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docs citations

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3276  
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#	ARTICLE	IF	CITATIONS
1	Vibrational spectroscopy of water at the vapor/water interface. <i>Physical Review Letters</i> , 1993, 70, 2313-2316.	2.9	926
2	Vibrational spectra of water molecules at quartz/water interfaces. <i>Physical Review Letters</i> , 1994, 72, 238-241.	2.9	503
3	Nanoparticles of iron(ii) spin-crossover. <i>Chemical Communications</i> , 2008, , 4327.	2.2	172
4	Nanoparticles of $[\text{Fe}(\text{NH}_2\text{-trz})_3\text{Br}]_2 \cdot 3\text{H}_2\text{O}$ ( $\text{NH}_2\text{-trz} = 1,2,4\text{-triazole}$ ) Prepared by the Reverse Micelle Technique: Influence of Particle and Coherent Domain Sizes on Spin-Crossover Properties. <i>Chemistry - A European Journal</i> , 2009, 15, 6122-6130.	1.7	156
5	Single laser pulse induces spin state transition within the hysteresis loop of an Iron compound. <i>Chemical Physics Letters</i> , 2004, 394, 318-323.	1.2	116
6	Optical wavelet transform of fractal aggregates. <i>Physical Review Letters</i> , 1990, 64, 745-748.	2.9	85
7	Self-influence of a femtosecond laser beam upon ablation of Ag in liquids. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 78, 307-309.	1.1	65
8	Mechanism for optical switching of the spin crossover $[\text{Fe}(\text{NH}_2\text{-trz})_3(\text{Br})_2 \cdot 3\text{H}_2\text{O}]$ compound at room temperature. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3044.	1.3	57
9	Second-order non-linear optical response of metallo-organic compounds: towards switchable materials. <i>Chemical Physics Letters</i> , 2000, 324, 321-329.	1.2	50
10	Tuning photoinduced terahertz conductivity in monolayer graphene: Optical-pump terahertz-probe spectroscopy. <i>Physical Review B</i> , 2014, 90, .	1.1	49
11	$\text{KTiOPO}_4$ , $\text{KTiOAsO}_4$ , and $\text{KNbO}_3$ crystals for mid-infrared femtosecond optical parametric amplifiers: analysis and comparison. <i>Applied Physics B: Lasers and Optics</i> , 2000, 70, S247-S252.	1.1	45
12	Effect of the metal dilution on the thermal and light-induced spin transition in $[\text{FeMn}_{1-x}(\text{bpp})_2](\text{NCSe})_2$ : When $T(\text{LIESST})$ reaches $T_{1/2}$ . <i>Inorganica Chimica Acta</i> , 2008, 361, 3529-3533.	1.2	41
13	Transient absorption spectroscopy of the iron(II) $[\text{Fe}(\text{phen})_3]^{2+}$ complex: Study of the non-radiative relaxation of an isolated iron(II) complex. <i>Chemical Physics Letters</i> , 2011, 513, 42-47.	1.2	40
14	Second-Harmonic Generation of Electrically Poled Borophosphate Glasses: Effects of Introducing Niobium or Sodium Oxides. <i>Journal of Solid State Chemistry</i> , 1997, 133, 529-535.	1.4	37
15	Nanosecond study of spin state transition induced by a single nanosecond laser shot on $[\text{Fe}(\text{NH}_2\text{trz})_3]$ compounds inside and outside their thermal hysteresis loops. <i>Chemical Physics Letters</i> , 2010, 500, 18-22.	1.2	35
16	Geometric phase shaping of terahertz vortex beams. <i>Optics Letters</i> , 2017, 42, 41.	1.7	35
17	Photoswitching of the spin crossover polymeric material $[\text{Fe}(\text{Htrz})_2(\text{trz})](\text{BF}_4)$ under continuous laser irradiation in a Raman scattering experiment. <i>Chemical Physics Letters</i> , 2014, 604, 105-109.	1.2	34
18	Nonlinear optical properties of polychlorotriphenylmethyl radicals: towards the design of 'super-octupolar' molecules. <i>Chemical Physics Letters</i> , 2002, 363, 245-251.	1.2	30

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19	Impact of dispersion, free carriers, and two-photon absorption on the generation of intense terahertz pulses in ZnTe crystals. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	30
20	Complete temperature study of the relaxation from the high-spin state to low-spin state in a strongly cooperative spin crossover compound. <i>Chemical Physics Letters</i> , 2005, 415, 206-210.	1.2	28
21	Single-shot time resolved study of the photo-reversible phase transition induced in flakes of Ti3O5 nanoparticles at room temperature. <i>Chemical Physics Letters</i> , 2014, 608, 106-112.	1.2	27
22	Nonlinear propagation of Gaussian beams in binary critical liquid mixtures. <i>Physical Review A</i> , 1989, 39, 5268-5279.	1.0	25
23	Ultrafast Dynamics of Metal Complexes of Tetrasulfonated Phthalocyanines at Biological Interfaces: Comparison between Photochemistry in Solutions, Films, and Noncancerous and Cancerous Human Breast Tissues. <i>Journal of Physical Chemistry C</i> , 2013, 117, 4999-5013.	1.5	25
24	Thermodiffusive and Electrostrictive Optical Nonlinearities in Critical Microemulsions. <i>Europhysics Letters</i> , 1988, 7, 219-224.	0.7	24
25	Terahertz Kerr effect. <i>Nature Photonics</i> , 2010, 4, 131-132.	15.6	24
26	Terahertz Spectroscopy of Single-Walled Carbon Nanotubes in a Polymer Film: Observation of Low-Frequency Phonons. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12446-12450.	1.5	24
27	Characterization of non-linear Potassium crystals in the Terahertz frequency domain. <i>Optics Communications</i> , 2004, 242, 631-639.	1.0	23
28	The Interplay between Surface Plasmon Resonance and Switching Properties in Gold@Spin Crossover Nanocomposites. <i>Advanced Functional Materials</i> , 2020, 30, 2000447.	7.8	22
29	Ultrafast Dynamics of Metal Complexes of Tetrasulphonated Phthalocyanines. <i>Journal of Physical Chemistry A</i> , 2012, 116, 4000-4009.	1.1	21
30	Development of a wavefront sensor for terahertz pulses. <i>Optics Express</i> , 2016, 24, 5203.	1.7	21
31	Phase conjugation in critical microemulsions. <i>Physical Review E</i> , 1994, 49, 2141-2149.	0.8	20
32	Observation of an asymmetry in the thermal hysteresis loop at the scale of a single spin-crossover particle. <i>Chemical Physics Letters</i> , 2009, 470, 131-135.	1.2	20
33	Picosecond to femtosecond pulses from high power self mode-locked ytterbium rod-type fiber laser. <i>Optics Express</i> , 2013, 21, 10731.	1.7	20
34	One-dimensional tunable photonic crystals with spin crossover material for the terahertz range. <i>Applied Physics Letters</i> , 2006, 89, 174105.	1.5	19
35	Time resolved terahertz spectroscopy of low frequency electronic resonances and optical pump-induced terahertz photoconductivity in reduced graphene oxide membrane. <i>Carbon</i> , 2014, 80, 762-770.	5.4	19
36	Design and Study of Structural Linear and Nonlinear Optical Properties of Chiral [Fe(phen)3]2+ Complexes. <i>Inorganic Chemistry</i> , 2018, 57, 14501-14512.	1.9	19

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37	Optical damage limit of efficient spintronic THz emitters. <i>IScience</i> , 2021, 24, 103152.	1.9	19
38	Dielectric characterization of [Fe(NH <sub>2</sub> trz) <sub>3</sub> ]Br·H <sub>2</sub> O thermal spin crossover compound by terahertz time domain spectroscopy. <i>Applied Physics Letters</i> , 2005, 87, 244103.	1.5	18
39	Experimental study of the injection-locked continuous-wave ring dye laser. <i>Optics Letters</i> , 1984, 9, 435.	1.7	17
40	Terahertz vortex beam generation by infrared vector beam rectification. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 12.	0.9	17
41	Dynamic gratings induced by electrostrictive compression of critical microemulsions. <i>IEEE Journal of Quantum Electronics</i> , 1986, 22, 1258-1261.	1.0	16
42	Reorientation dynamics of ferroelectric liquid-crystal molecules near the smectic-A-smectic-C* transition. <i>Physical Review E</i> , 1993, 47, R2269-R2272.	0.8	16
43	Phase separation and droplet nucleation induced by an optical piston. <i>Physical Review E</i> , 1994, 49, 4145-4148.	0.8	16
44	Tuning and focusing THz pulses by shaping the pump laser beam profile in a nonlinear crystal. <i>Optics Express</i> , 2009, 17, 592.	1.7	16
45	Unraveling the mechanism of NO ligand photoisomerism by time-resolved infrared spectroscopy. <i>Chemical Physics Letters</i> , 2012, 552, 64-68.	1.2	16
46	Measurement of the third-order susceptibility of glasses by EFISH of femtosecond pulses. <i>Optics Express</i> , 2001, 9, 586.	1.7	15
47	Subbandgap activated charges transfer in a graphene-MoS <sub>2</sub> -graphene heterostructure. <i>Nano Select</i> , 2021, 2, 2019-2028.	1.9	15
48	Photo-thermal Switching of Individual Plasmonically Activated Spin Crossover Nanoparticle Imaged by Ultrafast Transmission Electron Microscopy. <i>Advanced Materials</i> , 2021, 33, e2105586.	11.1	15
49	Laser induced spin state transition: Spectral and temporal evolution. <i>Chemical Physics Letters</i> , 2009, 469, 274-278.	1.2	14
50	Terahertz-field-induced second harmonic generation through Pockels effect in zinc telluride crystal. <i>Optics Letters</i> , 2014, 39, 5921.	1.7	14
51	Injection locking of CW ring dye lasers. <i>IEEE Journal of Quantum Electronics</i> , 1984, 20, 310-318.	1.0	13
52	Interpretation of the Anomalous Critical Behaviour in a Quaternary Microemulsion. <i>Europhysics Letters</i> , 1989, 9, 833-838.	0.7	13
53	Photostability of biological systems—Femtosecond dynamics of zinc tetrasulfonated phthalocyanine at cancerous and noncancerous human Breast tissues. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 332, 10-24.	2.0	12
54	Conical versus Gaussian terahertz emission from two-color laser-induced air plasma filaments. <i>Optics Letters</i> , 2020, 45, 2132.	1.7	12

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55	Optical parametric chirped pulse amplification and spectral shaping of a continuum generated in a photonic band gap fiber. <i>Optics Express</i> , 2004, 12, 2397.	1.7	11
56	Transient absorption spectroscopy of the $[\text{Fe}(\text{2-CH}_3\text{-phen})_3]^{2+}$ complex: Study of the high spin $\rightarrow$ low spin relaxation of an isolated iron(II) complex. <i>Chemical Physics Letters</i> , 2013, 556, 82-88.	1.2	11
57	Impact of the spin state switching on the dielectric constant of iron (II) spin crossover nanoparticles. <i>Chemical Physics Letters</i> , 2015, 641, 14-19.	1.2	11
58	Study of fluorinated sulfonyl stilbenes in Langmuir-Blodgett films for an efficient harmonic generation in the blue domain. <i>Chemical Physics Letters</i> , 1995, 242, 604-616.	1.2	10
59	Enhancement in optically induced ultrafast THz response of $\text{MoSe}_2/\text{MoS}_2$ heterobilayer. <i>Optics Express</i> , 2021, 29, 4181.	1.7	10
60	Nuclear and electronic contributions to the third-order nonlinearity in different glasses. <i>Optics Communications</i> , 2008, 281, 769-775.	1.0	9
61	Terahertz Time Domain Spectroscopy to Detect Low-Frequency Vibrations of Double-Walled Carbon Nanotubes. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 4363-4366.	1.0	9
62	Influence of two photon absorption induced free carriers on coherent polariton and phonon generation in ZnTe crystals. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	9
63	Direct Wavefront Measurement of Terahertz Pulses Using Two-Dimensional Electro-Optic Imaging. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2017, 7, 741-746.	2.0	9
64	Measurement of non-instantaneous contribution to the $\chi^{(3)}$ in different liquids using femtosecond chirped pulses. <i>Optics Communications</i> , 2000, 176, 459-472.	1.0	8
65	Design of new fluorinated bridged push $\rightarrow$ pull stilbenes and preparation of LB films for second harmonic generation in the blue domain. <i>New Journal of Chemistry</i> , 2000, 24, 977-985.	1.4	8
66	Infrared second harmonic generation spectroscopy of Ge(111) interfaces. <i>Journal of Chemical Physics</i> , 2003, 119, 3958-3962.	1.2	8
67	Direct measurement of wave-front distortion induced during second-harmonic generation: application to breakup-integral compensation. <i>Optics Letters</i> , 2004, 29, 899.	1.7	8
68	Simple and distortion-free optical sampling of terahertz pulses via heterodyne detection schemes. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016, 33, 2045.	0.9	8
69	Frequency resolved cross-correlation between optical and terahertz pulses: application to ultrashort laser pulse characterization. <i>Optics Express</i> , 2016, 24, 3003.	1.7	8
70	Phase conjugation used as a test of the local and nonlocal characteristics of optical nonlinearities in microemulsions. <i>Optics Letters</i> , 1991, 16, 1644.	1.7	7
71	Optical wavelet transform and local scaling properties of fractals. <i>Journal of Applied Crystallography</i> , 1991, 24, 526-530.	1.9	6
72	Optical-diffraction measurement of fractal dimensions and $f(\pm)$ spectrum. <i>Physical Review A</i> , 1992, 45, 8961-8964.	1.0	6

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73	Study of the Photoswitching of a Fe(II) Chiral Complex through Linear and Nonlinear Ultrafast Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5975-5982.	2.1	6
74	Large optical third-order nonlinearities in a switchable Prussian blue analogue. <i>Optical Materials Express</i> , 2017, 7, 444.	1.6	5
75	Ultrafast, broadband and tunable terahertz reflector and neutral density filter based on high resistivity silicon. <i>Optics Express</i> , 2022, 30, 18995.	1.7	5
76	Self focusing induced by Soret effect. <i>Optics Communications</i> , 1990, 78, 436-442.	1.0	4
77	High resolution doppler free spectroscopy of mercury lines in the UV domain. <i>Optics Communications</i> , 1987, 61, 26-32.	1.0	3
78	Spectral characterization of second harmonic $\chi^{(2)}$ cascading phenomena. <i>Optics Express</i> , 2001, 9, 172.	1.7	3
79	Second-Harmonic and Terahertz Generation in a Prussian-Blue Analogue. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 378-384.	1.0	3
80	Time-Resolved Study of the Photoswitching of Gold Nanorods Coated with a Spin-Crossover Compound Shell. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22611-22621.	1.5	3
81	Laser-Induced Structural Changes in Microemulsions. <i>Europhysics Letters</i> , 1992, 17, 27-32.	0.7	2
82	Automatic time delay optimization between the pump and seed pulses of a broadly tunable femtosecond optical parametric amplifier. <i>Applied Optics</i> , 1998, 37, 2411.	2.1	2
83	Compact nanosecond laser system for the ignition of aeronautic combustion engines. <i>Journal of Applied Physics</i> , 2016, 120, 233102.	1.1	2
84	Impact of Spin State Transition on Vibrations of $[\text{Fe}^{\text{II}}(\text{PM}^{\text{II}}\text{BiA})_2(\text{NCS})_2]$ and $[\text{Fe}^{\text{II}}(\text{PM}^{\text{II}}\text{PEA})_2(\text{NCS})_2]$ Spin Crossover Compounds: Experimental and Theoretical Far IR and Raman Study. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 385-393.	1.0	2
85	Electro-optic comb pumped optical parametric oscillator with flexible repetition rate at GHz level. <i>Optics Letters</i> , 2021, 46, 1652.	1.7	2
86	New lasers and laser schemes. <i>Applied Physics B: Lasers and Optics</i> , 1982, 29, 143-148.	1.1	1
87	Thermally poled fused silica as a second-order autocorrelation crystal. <i>Applied Physics B: Lasers and Optics</i> , 2000, 70, S95-S98.	1.1	1
88	8 watts actively mode-locked Ytterbium doped fiber laser delivering 15 ps pulses at 40 MHz. , 2011, , .		1
89	Time resolved measurements of gratings photo-induced by femtosecond pulses in a lead doped glass. <i>Optical Materials Express</i> , 2012, 2, 1751.	1.6	1
90	Terahertz wavefront assessment based on 2D electro-optic imaging. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1

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91	Rational Direct Synthesis of RbMnFe Nanoparticles ( $RbMnFe = Rb_xMn[Fe(CN)_6]_{2+x}/3 \cdot nH_2O$ Prussian) Tj ETQq1 1.9 0.7843 14 rgBT / 0v	1.9	0
92	Spatial control of second-order optical susceptibility induced in thermally poled glasses. Applied Physics Letters, 2001, 78, 3018-3020.	1.5	0
93	Harmonics generation from rod-type Yb doped fiber laser. , 2008, , .		0
94	Ten watts actively mode-locked ytterbium doped fiber laser delivering 15 ps at 40 MHz. Proceedings of SPIE, 2011, , .	0.8	0
95	Group index determination by pulse delay measurements and dispersion study in the zero dispersion region of fused silica. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2797.	0.9	0
96	Tandem fiber laser: injected laser versus double pass amplifier. , 2008, , .		0
97	Study of nanosecond polarization maintaining Ytterbium-doped fiber amplifier in pulsed pump regime. , 2015, , .		0
98	Self-compression of the signal wave in a PPLN OPO pumped by chirped pulses. , 2017, , .		0
99	Tunable and chirp free femtosecond signal pulses generated by a PPLN OPO pumped by Ytterbium fiber laser chirped pulses. , 2019, , .		0
100	Influence of photo-excited charge carriers in silicon wafer in a two-color laser-induced air plasma terahertz emission. , 2020, , .		0