Pdâ€dr Thomas G MayerhÃ¶fer

List of Publications by Year
in descending order

82 papers	3,875 citations	279701 23 h-index	128225 60 g-index
84 all docs	84 docs citations	84 times ranked	4515 citing authors

#	Article	IF	Citations
1	Smart Error Sum Based on Hybrid Two-Trace Two-Dimensional (2T2D) Correlation Analysis. Applied Spectroscopy, 2023, 77, 583-592.	1.2	3
2	Infrared refraction spectroscopy - Kramers-Kronig analysis revisited. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 270, 120799.	2.0	15
3	N₂O Adsorption and Photochemistry on Ceria Surfaces. Journal of Physical Chemistry C, 2022, 126, 2253-2263.	1.5	1
4	Detection of siloxane thin films on glass substrate using IR ratio-reflectance spectrum. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 271, 120893.	2.0	0
5	Hybrid 2D Correlation-Based Loss Function for the Correction of Systematic Errors. Analytical Chemistry, 2022, 94, 695-703.	3.2	4
6	Beyond Beerâ€™s Law: Quasi-Ideal Binary Liquid Mixtures. Applied Spectroscopy, 2022, 76, 92-104.	1.2	17
7	The Negative Solvatochromism of Reichardtâ€˜s Dye B30 â€“ A Complementary Study. ChemPhysChem, 2022, 23, .	1.0	10
8	Infrared spectroscopy of quasi-ideal binary liquid mixtures: The challenges of conventional chemometric regression. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 280, 121518.	2.0	2
9	Recent technological and scientific developments concerning the use of infrared spectroscopy for point-of-care applications. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 251, 119411.	2.0	16
10	Infrared Refraction Spectroscopy. Applied Spectroscopy, 2021, 75, 1526-1531.	1.2	6
11	Reply to comment on Improving Poor Man's Kramers-Kronig analysis and Kramers-Kronig constrained variational analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 261, 120071.	2.0	1
12	Present and Future of Surface-Enhanced Raman Scattering. ACS Nano, 2020, 14, 28-117.	7.3	2,153
13	The Bouguerâ€Beerâ€Lambert Law: Shining Light on the Obscure. ChemPhysChem, 2020, 21, 2029-2046.	1.0	190
14	Understanding longitudinal optical oscillator strengths and mode order. Physica B: Condensed Matter, 2020, 597, 412398.	1.3	1
15	Effects of small crystallite size on the thermal infrared (vibrational) spectra of minerals. American Mineralogist, 2020, 105, 1756-1760.	0.9	13
16	The Bouguerâ€Beerâ€Lambert Law: Shining Light on the Obscure. ChemPhysChem, 2020, 21, 2028-2028.	1.0	11
17	Beyond Beer's Law: Revisiting the Lorentzâ€Lorenz Equation. ChemPhysChem, 2020, 21, 1218-1223.	1.0	26
18	CaF₂: An Ideal Substrate Material for Infrared Spectroscopy?. Analytical Chemistry, 2020, 92, 9024-9031.	3.2	21

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19	Dielectric function decomposition by dipole interaction distribution: application to triclinic K₂Cr₂O₇. New Journal of Physics, 2020, 22, 073041.	1.2	4
20	Deep learning for â€˜artefactâ€™ removal in infrared spectroscopy. Analyst, The, 2020, 145, 5213-5220.	1.7	24
21	Removing interference-based effects from infrared spectra â€“ interference fringes re-revisited. Analyst, The, 2020, 145, 3385-3394.	1.7	23
22	Polarization-dependent vibrational shifts on dielectric substrates. Physical Chemistry Chemical Physics, 2020, 22, 17129-17133.	1.3	6
23	Beyond Beer's Law: Spectral Mixing Rules. Applied Spectroscopy, 2020, 74, 1287-1294.	1.2	19
24	Beyond Beer's Law: Why the Index of Refraction Depends (Almost) Linearly on Concentration. ChemPhysChem, 2020, 21, 707-711.	1.0	31
25	Structures for surface-enhanced nonplasmonic or hybrid spectroscopy. Nanophotonics, 2020, 9, 741-760.	2.9	13
26	Complete dispersion analysis of single crystal EDDt. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 206, 224-231.	2.0	0
27	Beer's Lawâ€Why Integrated Absorbance Depends Linearly on Concentration. ChemPhysChem, 2019, 20, 2748-2753.	1.0	54
28	Deviations from Beer's law on the microscale â€“ nonadditivity of absorption cross sections. Physical Chemistry Chemical Physics, 2019, 21, 9793-9801.	1.3	25
29	Analysis of the polarized IR reflectance spectra of the monoclinic Î±-oxalic acid dihydrate. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 218, 1-8.	2.0	3
30	Improving Poor Man's Kramers-Kronig analysis and Kramers-Kronig constrained variational analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 213, 391-396.	2.0	10
31	Beer's law derived from electromagnetic theory. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 215, 345-347.	2.0	42
32	Quantitative Evaluation of Infrared Absorbance Spectra â€“ Lorentz Profile versus Lorentz Oscillator. ChemPhysChem, 2019, 20, 31-36.	1.0	25
33	Beer's Law â€“ Why Absorbance Depends (Almost) Linearly on Concentration. ChemPhysChem, 2019, 20, 511-515.	1.0	58
34	Observation of Giant Infrared Circular Dichroism in Plasmonic 2D-Metamaterial Arrays. ACS Photonics, 2018, 5, 1176-1180.	3.2	26
35	The electric field standing wave effect in infrared transflection spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 191, 283-289.	2.0	41
36	Periodic array-based substrates for surface-enhanced infrared spectroscopy. Nanophotonics, 2018, 7, 39-79.	2.9	59

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37	Electric field standing wave effects in internal reflection and ATR spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 191, 165-171.	2.0	11
38	Correction to Slit-Enhanced Chiral- and Broadband Infrared Ultra-Sensing. ACS Photonics, 2018, 5, 4186-4186.	3.2	0
39	Employing Theories Far beyond Their Limits â€“ Linear Dichroism Theory. ChemPhysChem, 2018, 19, 2123-2130.	1.0	8
40	Slit-Enhanced Chiral- and Broadband Infrared Ultra-Sensing. ACS Photonics, 2018, 5, 3238-3245.	3.2	30
41	Interference-Enhanced Raman Spectroscopy as a Promising Tool for the Detection of Biomolecules on Raman-Compatible Surfaces. Analytical Chemistry, 2018, 90, 9025-9032.	3.2	14
42	Generalized dispersion analysis of crystals with unknown symmetry and orientation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 205, 348-363.	2.0	7
43	Dispersion analysis of sodium dichromate dihydrate Na2Cr2O7Â·2H2O single crystal. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 205, 243-250.	2.0	1
44	Removing interference-based effects from the infrared transflectance spectra of thin films on metallic substrates: a fast and wave optics conform solution. Analyst, The, 2018, 143, 3164-3175.	1.7	30
45	Generalized dispersion analysis of arbitrarily cut monoclinic crystals. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 185, 217-227.	2.0	5
46	Dispersion analysis of arbitrarily cut orthorhombic crystals. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 180, 67-78.	2.0	7
47	The Electric Field Standing Wave Effect in Infrared Transmission Spectroscopy. ChemPhysChem, 2017, 18, 2916-2923.	1.0	30
48	IR-ATR investigation of surface anisotropy in silicate glasses. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 173, 608-617.	2.0	3
49	Employing Theories Far beyond Their Limitsâ€”The Case of the (Boguerâ€) Beerâ€“Lambert Law. ChemPhysChem, 2016, 17, 1948-1955.	1.0	142
50	Dispersion analysis with inverse dielectric function modelling. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 168, 212-217.	2.0	9
51	Plasmonic nanostructures for surface enhanced spectroscopic methods. Analyst, The, 2016, 141, 756-793.	1.7	159
52	Optical phonon features of triclinic montebrasite: Dispersion analysis and non-polar Raman modes. Vibrational Spectroscopy, 2015, 77, 25-34.	1.2	4
53	Complete dispersion analysis of single crystal neodymium gallate. Vibrational Spectroscopy, 2015, 78, 17-22.	1.2	7
54	Dispersion analysis of arbitrarily cut uniaxial crystals. Vibrational Spectroscopy, 2015, 78, 23-33.	1.2	7

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55	Ultra Sensing by Combining Extraordinary Optical Transmission with Perfect Absorption. ACS Photonics, 2015, 2, 1567-1575.	3.2	32
56	Dispersion analysis of triclinic K2Cr2O7. Vibrational Spectroscopy, 2014, 72, 111-118.	1.2	18
57	Determination of the dielectric tensor function of triclinic CuSO4Â·5H2O. Vibrational Spectroscopy, 2013, 67, 44-54.	1.2	26
58	Light-Matter Interaction. , 2013, , 87.		1
59	Dispersion analysis of non-normal reflection spectra from monoclinic crystals. Vibrational Spectroscopy, 2012, 63, 396-403.	1.2	20
60	Dispersion analysis of perpendicular modes in anisotropic crystals and layers. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2428.	0.8	12
61	Simplified formulas for non-normal reflection from monoclinic crystals. Optics Communications, 2011, 284, 719-723.	1.0	12
62	The 390 cmâ¯1 feature of polycrystalline hematiteâ€"An optical crystallite size effect. Icarus, 2009, 203, 303-309.	1.1	2
63	Employing polyethylene as contacting agent between ATR-crystals and solid samples with hard surfaces. Journal of Molecular Structure, 2009, 924-926, 571-576.	1.8	5
64	Consolidated silica glass from nanoparticles. Journal of Solid State Chemistry, 2008, 181, 2442-2447.	1.4	47
65	Polarized IR reflectance spectra of the monoclinic single crystal K2Ni(SO4)2Â·6H2O: Dispersion analysis, dielectric and optical properties. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 69, 629-641.	2.0	27
66	Dispersion analysis of polarized IR reflectance spectra of Tutton salts: The Î½3(SO42â¯) frequency region. Vibrational Spectroscopy, 2008, 47, 91-98.	1.2	19
67	Angular dependence of the reflectance from an isotropic polydomain medium: experimental verification. Journal of Optics, 2007, 9, 581-585.	1.5	5
68	Employing spectra of polycrystalline materials for the verification of optical constants obtained from corresponding low-symmetry single crystals. Applied Optics, 2007, 46, 327.	2.1	18
69	Investigation of the peculiarities in the polarized reflectance spectra of some Tutton salt monoclinic single crystals using dispersion analysis. Vibrational Spectroscopy, 2007, 44, 369-374.	1.2	19
70	Effective optical constants: A fundamental discrepancy. Vibrational Spectroscopy, 2006, 42, 118-123.	1.2	3
71	Modelling IR spectra of polycrystalline materials in the large crystallites limitâ€"quantitative determination of orientation. Journal of Optics, 2006, 8, 657-671.	1.5	28
72	Symmetric Euler orientation representations for orientational averaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 2611-2621.	2.0	16

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73	Optical isotropy in polycrystallineBa2TiSi2O8: Testing the limits of a well established concept. Physical Review B, 2005, 71, .	1.1	22
74	Angular dependence of the specular reflectance from an isotropic polydomain medium with large domains: surprising results regarding Brewsterâ€™s angle. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 185.	0.8	5
75	Angular dependence of the reflectance from an isotropic polydomain medium: effect of large domain size on total reflection. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 569.	0.8	2
76	Angular dependence of the reflectance from an isotropic polydomain medium: the influence of absorption. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 2557.	0.8	4
77	Infrared optical properties of Li- and Xe-irradiated KTiOPO 4. Applied Physics A: Materials Science and Processing, 2004, 78, 589-596.	1.1	2
78	Modelling IR-spectra of single-phase polycrystalline materials with random orientationâ€”a unified approach. Vibrational Spectroscopy, 2004, 35, 67-76.	1.2	29
79	Interpretation and modeling of IR-reflectance spectra of glasses considering medium range order. Journal of Non-Crystalline Solids, 2004, 333, 172-181.	1.5	18
80	Modelling IR-spectra of single-phase polycrystalline materials with random orientation â€“ Supplementations and refinements for optically uniaxial crystallites. Optik, 2003, 114, 351-359.	1.4	13
81	New Method of Modeling Infrared Spectra of Non-Cubic Single-Phase Polycrystalline Materials with Random Orientation. Applied Spectroscopy, 2002, 56, 1194-1205.	1.2	34
82	Dichroic Dipole Antenna Membranes from Aligned Linear BOPHY Dyes. Advanced Materials Interfaces, 0, , 2101490.	1.9	3