Thomas Schmid

List of Publications by Year
in descending order

80 papers	4,430 citations	117619 34 h-index	106340 65 g-index
83 all docs	83 docs citations	83 times ranked	4983 citing authors

#	Article	IF	Citations
1	Single Molecule Tip-Enhanced Raman Spectroscopy with Silver Tips. Journal of Physical Chemistry C, 2007, 111, 1733-1738.	3.1	314
2	Nanoscale Chemical Imaging Using Tipâ€Enhanced Raman Spectroscopy: A Critical Review. Angewandte Chemie - International Edition, 2013, 52, 5940-5954.	13.8	272
3	Tip-enhanced Raman Spectroscopy â€“ Its status, challenges and future directions. Chemical Physics Letters, 2009, 472, 1-13.	2.6	229
4	Aerobic microbial dolomite at the nanometer scale: Implications for the geologic record. Geology, 2008, 36, 879.	4.4	213
5	Nanoscale Chemical Imaging Using Top-Illumination Tip-Enhanced Raman Spectroscopy. Nano Letters, 2010, 10, 4514-4520.	9.1	186
6	Nanoscale Chemical Imaging of Single-Layer Graphene. ACS Nano, 2011, 5, 8442-8448.	14.6	162
7	Developments in and practical guidelines for tip-enhanced Raman spectroscopy. Nanoscale, 2012, 4, 1856-1870.	5.6	161
8	Nanoscale Roughness on Metal Surfaces Can Increase Tip-Enhanced Raman Scattering by an Order of Magnitude. Nano Letters, 2007, 7, 1401-1405.	9.1	160
9	Performing tipâ€enhanced Raman spectroscopy in liquids. Journal of Raman Spectroscopy, 2009, 40, 1392-1399.	2.5	156
10	Towards chemical analysis of nanostructures in biofilms II: tip-enhanced Raman spectroscopy of alginates. Analytical and Bioanalytical Chemistry, 2008, 391, 1907-1916.	3.7	138
11	Tip-Enhanced Raman Spectroscopy Can See More:â€‰ The Case of Cytochrome c. Journal of Physical Chemistry C, 2008, 112, 4867-4873.	3.1	113
12	Photoacoustic spectroscopy for process analysis. Analytical and Bioanalytical Chemistry, 2006, 384, 1071-1086.	3.7	108
13	High-density micro-arrays for mass spectrometry. Lab on A Chip, 2010, 10, 3206.	6.0	105
14	Nanoscale chemical imaging of segregated lipid domains using tip-enhanced Raman spectroscopy. Physical Chemistry Chemical Physics, 2011, 13, 9978.	2.8	105
15	Shedding light onto the spectra of lime: Raman and luminescence bands of CaO, Ca(OH)₂ and CaCO₃. Journal of Raman Spectroscopy, 2015, 46, 141-146.	2.5	103
16	Modern Raman Imaging: Vibrational Spectroscopy on the Micrometer and Nanometer Scales. Annual Review of Analytical Chemistry, 2013, 6, 379-398.	5.4	100
17	Full Spectroscopic Tip-Enhanced Raman Imaging of Single Nanotapes Formed from Î2-Amyloid(1â€“40) Peptide Fragments. ACS Nano, 2013, 7, 911-920.	14.6	96
18	Nanoscale Probing of a Polymerâ€Blend Thin Film with Tipâ€Enhanced Raman Spectroscopy. Small, 2009, 5, 952-960.	10.0	88

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19	Towards rapid nanoscale chemical analysis using tip-enhanced Raman spectroscopy with Ag-coated dielectric tips. Analytical and Bioanalytical Chemistry, 2007, 387, 2655-2662.	3.7	86
20	Near-Field Heating, Annealing, and Signal Loss in Tip-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 2104-2108.	3.1	83
21	Mode-Selective Surface-Enhanced Raman Spectroscopy Using Nanofabricated Plasmonic Dipole Antennas. Journal of Physical Chemistry C, 2009, 113, 14672-14675.	3.1	83
22	Asphaltene Adsorption onto an Iron Surface: Combined Near-Infrared (NIR), Raman, and AFM Study of the Kinetics, Thermodynamics, and Layer Structure. Energy & Fuels, 2011, 25, 189-196.	5.1	80
23	Understanding tipâ€enhanced Raman spectra of biological molecules: a combined Raman, SERS and TERS study. Journal of Raman Spectroscopy, 2012, 43, 1895-1904.	2.5	80
24	Comprehensive Comparison of Various Techniques for the Analysis of Elemental Distributions in Thin Films. Microscopy and Microanalysis, 2011, 17, 728-751.	0.4	72
25	Microbial mediated formation of Fe-carbonate minerals under extreme acidic conditions. Scientific Reports, 2014, 4, 4767.	3.3	68
26	Characterizing unusual metal substrates for gapâ€mode tipâ€enhanced Raman spectroscopy. Journal of Raman Spectroscopy, 2013, 44, 227-233.	2.5	63
27	The importance of plasmonic heating for the plasmon-driven photodimerization of 4-nitrothiophenol. Scientific Reports, 2019, 9, 3060.	3.3	63
28	Multidimensional Analysis of Single Algal Cells by Integrating Microspectroscopy with Mass Spectrometry. Analytical Chemistry, 2011, 83, 1843-1849.	6.5	59
29	Analysis of single algal cells by combining mass spectrometry with Raman and fluorescence mapping. Analyst, The, 2013, 138, 6732.	3.5	56
30	Missing Amide I Mode in Gap-Mode Tip-Enhanced Raman Spectra of Proteins. Journal of Physical Chemistry C, 2012, 116, 23061-23066.	3.1	55
31	A Mechanistic Perspective on Plastically Flexible Coordination Polymers. Angewandte Chemie - International Edition, 2020, 59, 5557-5561.	13.8	50
32	Towards chemical analysis of nanostructures in biofilms I: imaging of biological nanostructures. Analytical and Bioanalytical Chemistry, 2008, 391, 1899-1905.	3.7	39
33	A Strategy to Prevent Signal Losses, Analyte Decomposition, and Fluctuating Carbon Contamination Bands in Surface-Enhanced Raman Spectroscopy. Applied Spectroscopy, 2008, 62, 708-713.	2.2	38
34	Challenges in the quantification of nutrients in soils using laser-induced breakdown spectroscopy â€" A case study with calcium. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 146, 115-121.	2.9	36
35	Investigation of biocide efficacy by photoacoustic biofilm monitoring. Water Research, 2004, 38, 1189-1196.	11.3	35
36	Tip-enhanced Raman spectroscopic imaging of patterned thiol monolayers. Beilstein Journal of Nanotechnology, 2011, 2, 509-515.	2.8	33

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37	Orientation-distribution mapping of polycrystalline materials by Raman microspectroscopy. Scientific Reports, 2016, 5, 18410.	3.3	31
38	Process analysis of biofilms by photoacoustic spectroscopy. Analytical and Bioanalytical Chemistry, 2003, 375, 1124-1129.	3.7	29
39	A Photoacoustic Technique for Depth-Resolved In Situ Monitoring of Biofilms. Environmental Science & Technology, 2002, 36, 4135-4141.	10.0	27
40	Collection management and study of microscope slides: Storage, profiling,Âdeterioration, restoration procedures, and general recommendations. Zootaxa, 2017, 4322, .	0.5	25
41	Tomography of homogenized laser-induced plasma by Radon transform technique. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 123, 59-67.	2.9	22
42	Selective electrochemical functionalization of the graphene edge. Chemical Science, 2019, 10, 936-942.	7.4	22
43	Determination and imaging of binder remnants and aggregates in historic cement stone by Raman microscopy. Journal of Raman Spectroscopy, 2013, 44, 882-891.	2.5	21
44	Optical Absorbance Measurements of Opaque Liquids by Pulsed Laser Photoacoustic Spectroscopy. Analytical Chemistry, 2009, 81, 2403-2409.	6.5	19
45	Monte Carlo standardless approach for laser induced breakdown spectroscopy based on massive parallel graphic processing unit computing. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 125, 97-102.	2.9	19
46	Raman band widths of anhydrite II reveal the burning history of highâ€fired medieval gypsum mortars. Journal of Raman Spectroscopy, 2019, 50, 1154-1168.	2.5	19
47	Raman Microspectroscopic Imaging of Binder Remnants in Historical Mortars Reveals Processing Conditions. Heritage, 2019, 2, 1662-1683.	1.9	18
48	Insights into the CaSO4â€"H2O System: A Raman-Spectroscopic Study. Minerals (Basel, Switzerland), 2020, 10, 115.	2.0	18
49	Ferruginous phases in 19th century lime and cement mortars: A Raman microspectroscopic study. Materials Characterization, 2017, 129, 9-17.	4.4	17
50	Tipâ€enhanced Raman spectroscopy reveals rich nanoscale adsorption chemistry of 2â€mercaptopyridine on Ag. Israel Journal of Chemistry, 2007, 47, 177-184.	2.3	16
51	Spatially resolved characterization of chemical species and crystal structures in CuInS₂ and CuGa<i>_x</i> Se<i>_y</i> thin films using Raman microscopy. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1013-1016.	1.8	16
52	Chemical imaging of historical mortars by Raman microscopy. Construction and Building Materials, 2016, 114, 506-516.	7.2	14
53	Photoacoustic absorption spectra of biofilms. Review of Scientific Instruments, 2003, 74, 755-757.	1.3	13
54	On-line monitoring of opaque liquids by photoacoustic spectroscopy. Analytical and Bioanalytical Chemistry, 2003, 375, 1130-1135.	3.7	12

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55	Microstrain distribution mapping on CuInSe2 thin films by means of electron backscatter diffraction, X-ray diffraction, and Raman microspectroscopy. Ultramicroscopy, 2016, 169, 89-97.	1.9	12
56	Calcium aluminates in clinker remnants as marker phases for various types of 19th-century cement studied by Raman microspectroscopy. European Journal of Mineralogy, 2016, 28, 907-914.	1.3	12
57	Zirconium permanent modifiers for graphite furnaces used in absorption spectrometry: understanding their structure and mechanism of action. Journal of Analytical Atomic Spectrometry, 2018, 33, 2034-2042.	3.0	12
58	Tip-enhanced Raman spectroscopy and related techniques in studies of biological materials. Proceedings of SPIE, 2010, , .	0.8	11
59	Internal standard for tip-enhanced Raman spectroscopy. Applied Physics Letters, 2013, 103, 043111.	3.3	11
60	Phase composition and burning history of high-fired medieval gypsum mortars studied by Raman microspectroscopy. Materials Characterization, 2019, 151, 292-301.	4.4	11
61	Microstrain distributions in polycrystalline thin films measured by X-ray microdiffraction. Journal of Applied Crystallography, 2016, 49, 632-635.	4.5	10
62	Methods for Molecular Nanoanalysis. Chimia, 2006, 60, 783-788.	0.6	9
63	Ein mechanistischer Blick auf plastisch flexible Koordinationspolymere. Angewandte Chemie, 2020, 132, 5602-5607.	2.0	9
64	Electrochemical Immunomagnetic Ochratoxin A Sensing: Steps Forward in the Application of 3,3â€™,5,5â€™â€Tetramethylbenzidine in Amperometric Assays. ChemElectroChem, 2021, 8, 2597-2606.	3.4	9
65	Evaluation of a Spatial Heterodyne Spectrometer for Raman Spectroscopy of Minerals. Minerals (Basel, Switzerland), 2020, 10, 202.	2.0	8
66	Cretaceous black shale: a window into microbial life adaptation. Terra Nova, 2011, 23, 362-368.	2.1	7
67	Chemical Imaging on the Nanoscale â€“ Top-Illumination Tip-Enhanced Raman Spectroscopy. Chimia, 2011, 65, 235.	0.6	6
68	Measuring the Burning Temperatures of Anhydrite Micrograins in a High-Fired Medieval Gypsum Mortar. ChemistrySelect, 2017, 2, 9153-9156.	1.5	6
69	Possibilities of functionalized probes in optical near-field microscopy. Physica Scripta, 2014, T162, 014005.	2.5	5
70	Trace compounds in Early Medieval Egyptian blue carry information on provenance, manufacture, application, and ageing. Scientific Reports, 2021, 11, 11296.	3.3	5
71	Formation Mechanism of a Nanoâ€Ring of Bismuth Cations and Monoâ€Lacunary Kegginâ€Type Phosphomolybdate. Chemistry - A European Journal, 2022, , .	3.3	5
72	Shedding light onto the spectra of limeâ€"Part 2: Raman spectra of Ca and Mg carbonates and the role of <i>d</i>â€block element luminescence. Journal of Raman Spectroscopy, 2021, 52, 1462-1472.	2.5	4

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73	Raman spectroscopy as a tool for the collection management of microscope slides. Zoologischer Anzeiger, 2016, 265, 178-190.	0.9	3
74	Wear behaviour of Î±-alumina in hot steam at high contact pressure. Wear, 2018, 404-405, 22-30.	3.1	3
75	Editorial for the Special Issue â€œModern Raman Spectroscopy of Mineralsâ€• Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock	2.0	3
76	Ageing Effects in Mounting Media of Microscope Slide Samples from Natural History Collections: A Case Study with Canada Balsam and PermountTM. Polymers, 2021, 13, 2112.	4.5	3
77	Spectroscopic Imaging with Nanometer Resolution Using Near-Field Methods. , 0, , 473-499.		1
78	Tenth International Conference on Near-Field Optics, Nanophotonics, and Related Techniques (NFO) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.7	0
79	Nanoscale Chemical Analysis of Cell Membrane Constituents Using Tip-Enhanced Raman Spectroscopy. , 2010, , .		0
80	Beautiful PietÃs in South Tyrol (Northern Italy): local or imported works of art?. Heritage Science, 2022, 10, .	2.3	0