Max Diem

List of Publications by Year
in descending order

109 papers	6,669 citations	47006 47 h-index	66911 78 g-index
118 all docs	118 docs citations	118 times ranked	4899 citing authors

#	Article	IF	Citations
1	Detection of cancer markers or marker surrogates by infrared spectral histopathology (SHP): PD-L1 and Her2/neu. Clinical Spectroscopy, 2021, 3, 100018.	1.3	1
2	Resolving Interobserver Discrepancies in Lung Cancer Diagnoses by Spectral Histopathology. Archives of Pathology and Laboratory Medicine, 2019, 143, 157-173.	2.5	9
3	Spectral histopathology of the lung: A review of two large studies. Journal of Biophotonics, 2019, 12, e201900061.	2.3	6
4	Parasites under the Spotlight: Applications of Vibrational Spectroscopy to Malaria Research. Chemical Reviews, 2018, 118, 5330-5358.	47.7	40
5	Optimizing decision tree structures for spectral histopathology (SHP). Analyst, The, 2018, 143, 5935-5939.	3.5	3
6	Comments on recent reports on infrared spectral detection of disease markers in blood components. Journal of Biophotonics, 2018, 11, e201800064.	2.3	19
7	Label-free FTIR spectroscopy detects and visualizes the early stage of pulmonary micrometastasis seeded from breast carcinoma. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2018, 1864, 3574-3584.	3.8	19
8	Roadmap on optical sensors. Journal of Optics (United Kingdom), 2017, 19, 083001.	2.2	70
9	Biofluids and other techniques: general discussion. Faraday Discussions, 2016, 187, 575-601.	3.2	11
10	Spectral Pathology: general discussion. Faraday Discussions, 2016, 187, 155-186.	3.2	5
11	Single cell analysis/data handling: general discussion. Faraday Discussions, 2016, 187, 299-327.	3.2	4
12	Clinical Spectroscopy: general discussion. Faraday Discussions, 2016, 187, 429-460.	3.2	6
13	Infrared micro-spectroscopy of human tissue: principles and future promises. Faraday Discussions, 2016, 187, 9-42.	3.2	20
14	Operando Raman Micro-Spectroscopy of Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2016, 163, H3152-H3159.	2.9	25
15	Cancer screening via infrared spectral cytopathology (SCP): results for the upper respiratory and digestive tracts. Analyst, The, 2016, 141, 416-428.	3.5	14
16	Statistical analysis of a lung cancer spectral histopathology (SHP) data set. Analyst, The, 2015, 140, 2449-2464.	3.5	29
17	A method for the comparison of multi-platform spectral histopathology (SHP) data sets. Analyst, The, 2015, 140, 2465-2472.	3.5	17
18	nTiO 2 induced changes in intracellular composition and nutrient stoichiometry in primary producer â€" cyanobacteria. Science of the Total Environment, 2015, 512-513, 345-352.	8.0	9

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19	Infrared micro-spectroscopy for cyto-pathological classification of esophageal cells. Analyst, The, 2015, 140, 2215-2223.	3.5	17
20	Classification of malignant and benign tumors of the lung by infrared spectral histopathology (SHP). Laboratory Investigation, 2015, 95, 406-421.	3.7	48
21	Raman Micro-Spectroscopy as a Non-Invasive Tool to Follow the Intracellular Fate of Nanoparticles. Frontiers in Nanobiomedical Research, 2014, , 489-510.	0.1	0
22	The characterization of normal thyroid tissue by micro-FTIR spectroscopy. Analyst, The, 2013, 138, 7094.	3.5	21
23	Label-free Raman microspectral analysis for comparison of cellular uptake and distribution between nontargeted and EGFR-targeted biodegradable polymeric nanoparticles. Drug Delivery and Translational Research, 2013, 3, 575-586.	5.8	20
24	Spectral cytopathology: new aspects of data collection, manipulation and confounding effects. Analyst, The, 2013, 138, 3975.	3.5	50
25	Molecular pathology via IR and Raman spectral imaging. Journal of Biophotonics, 2013, 6, 855-886.	2.3	167
26	Immunohistochemistry, histopathology and infrared spectral histopathology of colon cancer tissue sections. Journal of Biophotonics, 2013, 6, 88-100.	2.3	101
27	Vibrational spectroscopic changes of Bâ€lymphocytes upon activation. Journal of Biophotonics, 2013, 6, 101-109.	2.3	35
28	FT-IR Standoff Detection of Thermally Excited Emissions of Trinitrotoluene (TNT) Deposited on Aluminum Substrates. Applied Spectroscopy, 2013, 67, 181-186.	2.2	21
29	Noise Adjusted Principal Component reconstruction to optimize infrared microspectroscopy of individual live cells. Analyst, The, 2012, 137, 2958.	3.5	20
30	Identification of Functionally Relevant Populations in Enhanced Biological Phosphorus Removal Processes Based On Intracellular Polymers Profiles and Insights into the Metabolic Diversity and Heterogeneity. Environmental Science & Technology, 2012, 46, 5010-5017.	10.0	55
31	Evaluating Different Fixation Protocols for Spectral Cytopathology, Part 2: Cultured Cells. Analytical Chemistry, 2012, 84, 8265-8271.	6.5	18
32	Infrared spectral histopathology (SHP): a novel diagnostic tool for the accurate classification of lung cancer. Laboratory Investigation, 2012, 92, 1358-1373.	3.7	114
33	Evaluating Different Fixation Protocols for Spectral Cytopathology, Part 1. Analytical Chemistry, 2012, 84, 1259-1266.	6.5	33
34	Line shape distortion effects in infrared spectroscopy. Analyst, The, 2012, 137, 3954.	3.5	83
35	Applications of Infrared and Raman Microspectroscopy of Cells and Tissue in Medical Diagnostics: Present Status and Future Promises. Spectroscopy, 2012, 27, 463-496.	0.8	77
36	Monitoring the reversible B to A-like transition of DNA in eukaryotic cells using Fourier transform infrared spectroscopy. Nucleic Acids Research, 2011, 39, 5439-5448.	14.5	191

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37	Synthesis and characterization of vanadosilicate AM-6 with transition metal ions isomorphously substituted in the framework. Microporous and Mesoporous Materials, 2011, 145, 118-123.	4.4	6
38	Spectral unmixing and clustering algorithms for assessment of single cells by Raman microscopic imaging. Theoretical Chemistry Accounts, 2011, 130, 1249-1260.	1.4	139
39	Impact of nano titanium dioxide exposure on cellular structure of Anabaena variabilis and evidence of internalization. Environmental Toxicology and Chemistry, 2011, 30, 861-869.	4.3	59
40	Single point vs. mapping approach for spectral cytopathology (SCP). Journal of Biophotonics, 2010, 3, 588-596.	2.3	29
41	Two step resonant Mie scattering correction of infrared microâ€spectral data: human lymph node tissue. Journal of Biophotonics, 2010, 3, 597-608.	2.3	60
42	Cytopathology by optical methods: spectral cytopathology of the oral mucosa. Laboratory Investigation, 2010, 90, 589-598.	3.7	56
43	Spectral cytopathology of cervical samples: detecting cellular abnormalities in cytologically normal cells. Laboratory Investigation, 2010, 90, 1068-1077.	3.7	60
44	Effects of Normalization on Spectral Unmixing and Clustering Algorithms in Raman Imaging. , 2010, , .		0
45	Confocal Raman microspectral imaging (CRMI) of murine stem cell colonies. Analyst, The, 2010, 135, 3030.	3.5	21
46	Infrared microspectroscopy of live cells in aqueous media. Analyst, The, 2010, 135, 3227.	3.5	53
47	Label-free imaging of human cells: algorithms for image reconstruction of Raman hyperspectral datasets. Analyst, The, 2010, 135, 2002.	3.5	161
48	Micro-Raman Detection of Nuclear Membrane Lipid Fluctuations in Senescent Epithelial Breast Cancer Cells. Analytical Chemistry, 2010, 82, 4259-4263.	6.5	39
49	Detection of breast micro-metastases in axillary lymph nodes by infrared micro-spectral imaging. Analyst, The, 2009, 134, 1067.	3.5	64
50	Spectral detection of microâ€metastases in lymph node histoâ€pathology. Journal of Biophotonics, 2009, 2, 37-46.	2.3	29
51	The Infrared Spectral Signatures of Disease: Extracting the Distinguishing Spectral Features between Normal and Diseased States. Applied Spectroscopy, 2009, 63, 307A-318A.	2.2	33
52	Label-Free Raman Spectral Imaging of Intracellular Delivery and Degradation of Polymeric Nanoparticle Systems. ACS Nano, 2009, 3, 3552-3559.	14.6	119
53	Evaluation of Intracellular Polyphosphate Dynamics in Enhanced Biological Phosphorus Removal Process using Raman Microscopy. Environmental Science & Technology, 2009, 43, 5436-5442.	10.0	70
54	Evaluation of Intracellular Polyphosphate Distribution in the PAOs Using Raman Microscopy. Proceedings of the Water Environment Federation, 2009, 2009, 460-479.	0.0	0

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55	Infrared micro-spectral imaging: distinction of tissue types in axillary lymph node histology. BMC Clinical Pathology, 2008, 8, 8.	1.8	91
56	Cytology by infrared micro-spectroscopy: Automatic distinction of cell types in urinary cytology. Vibrational Spectroscopy, 2008, 48, 101-106.	2.2	33
57	New Ways of Imaging Uptake and Intracellular Fate of Liposomal Drug Carrier Systems inside Individual Cells, Based on Raman Microscopy. Molecular Pharmaceutics, 2008, 5, 287-293.	4.6	105
58	Chapter 10 Infrared and Raman Microscopy in Cell Biology. Methods in Cell Biology, 2008, 89, 275-308.	1.1	145
59	Shedding New Light on the Molecular Architecture of Oocytes Using a Combination of Synchrotron Fourier Transform-Infrared and Raman Spectroscopic Mapping. Analytical Chemistry, 2008, 80, 9065-9072.	6.5	70
60	Label-Free Detection of Mitochondrial Distribution in Cells by Nonresonant Raman Microspectroscopy. Biophysical Journal, 2007, 93, 668-673.	0.5	227
61	Cell-cycle-dependent variations in FTIR micro-spectra of single proliferating HeLa cells: Principal component and artificial neural network analysis. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 908-914.	2.6	83
62	Infrared micro-spectroscopic studies of epithelial cells. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 915-922.	2.6	50
63	Raman and Infrared Microspectral Imaging of Mitotic Cells. Applied Spectroscopy, 2006, 60, 1-8.	2.2	160
64	Infrared micro-spectroscopy of human cells: Causes for the spectral variance of oral mucosa (buccal) cells. Vibrational Spectroscopy, 2006, 42, 9-14.	2.2	91
65	Artificial neural networks as supervised techniques for FT-IR microspectroscopic imaging. Journal of Chemometrics, 2006, 20, 209-220.	1.3	84
66	Microspectroscopy of single proliferating HeLa cells. Vibrational Spectroscopy, 2005, 38, 169-177.	2.2	53
67	Correction of dispersive line shape artifact observed in diffuse reflection infrared spectroscopy and absorption/reflection (transflection) infrared micro-spectroscopy. Vibrational Spectroscopy, 2005, 38, 129-132.	2.2	90
68	Infrared spectral imaging of lymph nodes: Strategies for analysis and artifact reduction. Vibrational Spectroscopy, 2005, 38, 115-119.	2.2	48
69	Mie-Type Scattering and Non-Beer-Lambert Absorption Behavior of Human Cells in Infrared Microspectroscopy. Biophysical Journal, 2005, 88, 3635-3640.	0.5	215
70	Comparison of Fourier transform infrared (FTIR) spectra of individual cells acquired using synchrotron and conventional sources. Infrared Physics and Technology, 2004, 45, 331-338.	2.9	64
71	Imaging of colorectal adenocarcinoma using FT-IR microspectroscopy and cluster analysis. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2004, 1688, 176-186.	3.8	346
72	Letter to the Editor. Gynecologic Oncology, 2003, 91, 275-276.	1.4	6

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73	Infrared spectroscopy of cultured cells. Vibrational Spectroscopy, 2003, 32, 107-115.	2.2	37
74	Infrared Spectroscopy of Human Cells and Tissue: Detection of Disease. Technology in Cancer Research and Treatment, 2002, 1, 1-7.	1.9	51
75	Impact of Four 13C-Proline Isotope Labels on the Infrared Spectra of Ribonuclease T1. Journal of the American Chemical Society, 2002, 124, 6259-6264.	13.7	19
76	Spatially resolved IR microspectroscopy of single cells. Biopolymers, 2002, 67, 335-338.	2.4	121
77	FT-IR spectroscopic investigations of single cells on the subcellular level. Vibrational Spectroscopy, 2002, 28, 147-157.	2.2	176
78	Infrared Spectroscopic Studies of Major Cellular Components. Part I: The Effect of Hydration on the Spectra of Proteins. Applied Spectroscopy, 2001, 55, 788-793.	2.2	38
79	Infrared Spectroscopic Studies of Major Cellular Components. Part II: The Effect of Hydration on the Spectra of Nucleic Acids. Applied Spectroscopy, 2001, 55, 1502-1505.	2.2	47
80	Dihedral Ï^ Angle Dependence of the Amide III Vibration:Â A Uniquely Sensitive UV Resonance Raman Secondary Structural Probe. Journal of the American Chemical Society, 2001, 123, 11775-11781.	13.7	185
81	Infrared spectroscopy of human cells and tissue. VIII. Strategies for analysis of infrared tissue mapping data and applications to liver tissue. Biopolymers, 2000, 57, 282-290.	2.4	81
82	Infrared Spectroscopy of Human Cells and Tissue. Part VI: A Comparative Study of Histopathology and Infrared Microspectroscopy of Normal, Cirrhotic, and Cancerous Liver Tissue. Applied Spectroscopy, 2000, 54, 1-8.	2.2	79
83	Infrared Spectroscopy of Human Cells and Tissue. Part VII: FT-IR Microspectroscopy of DNase- and RNase-Treated Normal, Cirrhotic, and Neoplastic Liver Tissue. Applied Spectroscopy, 2000, 54, 480-485.	2.2	41
84	Infrared spectroscopy of human tissue. V. Infrared spectroscopic studies of myeloid leukemia (ML-1) cells at different phases of the cell cycle. , 1999, 5, 219-227.		148
85	Infrared Spectroscopy of Cells and Tissues: Shining Light onto a Novel Subject. Applied Spectroscopy, 1999, 53, 148A-161A.	2.2	296
86	Infrared spectroscopy of human tissue. V. Infrared spectroscopic studies of myeloid leukemia (MLâ€1) cells at different phases of the cell cycle. Biospectroscopy, 1999, 5, 219-227.	0.6	4
87	Measurement of Dispersive Vibrational Circular Dichroism: Signal Optimization and Artifact Reduction. Applied Spectroscopy, 1996, 50, 675-680.	2.2	18
88	Conformational studies of .beta.-turns in cyclic peptides by vibrational circular dichroism.. Journal of the American Chemical Society, 1995, 117, 9502-9508.	13.7	37
89	Conformational Studies of Cyclo-(-Pro-Gly-)3 and Its Complexes with Cations by Vibrational Circular Dichroism. Journal of the American Chemical Society, 1995, 117, 429-437.	13.7	28
90	Chapter 4 Application of infrared CD to the analysis of the solution conformation of biological molecules. Techniques and Instrumentation in Analytical Chemistry, 1994, 14, 91-130.	0.0	4

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91	Normal coordinate calculations as a classroom computer project. Journal of Chemical Education, 1991, 68, 35.	2.3	7
92	Infrared vibrational circular dichroism of alanine in the mid-infrared region: isotopic effects. Journal of the American Chemical Society, 1988, 110, 6967-6970.	13.7	46
93	Infrared vibrational circular dichroism in the amide III spectral region of peptides. Journal of the American Chemical Society, 1988, 110, 1749-1752.	13.7	47
94	Method for the automatic determination of laser beam polarization and intensity parameters for the measurement of Raman optical activity. Journal of Raman Spectroscopy, 1987, 18, 399-403.	2.5	2
95	Instrumental advances in Raman optical activity. Journal of Raman Spectroscopy, 1985, 16, 366-372.	2.5	12
96	Determination of peptide conformation via vibrational coupling: Application to diastereoisomeric alanyl dipeptides. Biopolymers, 1984, 23, 1917-1930.	2.4	25
97	Solution-phase Raman-spectroscopic studies on synthetic collagen analogs: Prolyl-prolyl-glycine and (prolyl-prolyl-glycine)10. Biopolymers, 1984, 23, 2955-2961.	2.4	15
98	Vibrational circular dichroism in amino acids and peptides. 5. Carbon-hydrogen, stretching vibrational circular dichroism and fixed partial charge calculations for deuterated isotopomers of alanine. Journal of the American Chemical Society, 1982, 104, 3336-3342.	13.7	30
99	Vibrational circular dichroism in amino acids and peptides. 6. Localized molecular orbital calculations of the carbon-hydrogen stretching vibrational circular dichroism in deuterated isotopomers of alanine. Journal of the American Chemical Society, 1982, 104, 3343-3349.	13.7	32
100	Vibrational circular dichroism in amino acids and peptides. 4. Vibrational analysis, assignments, and solution-phase Raman spectra of deuterated isotopomers of alanine. Journal of the American Chemical Society, 1982, 104, 3329-3336.	13.7	114
101	Vibrational optical activity in perturbed degenerate modes: Concepts and model calculations in 1â€substituted haloethanes. Journal of Chemical Physics, 1980, 73, 3530-3540.	3.0	32
102	Vibrational optical activity in para-substituted 1-methylcyclohex-1-enes. Journal of the American Chemical Society, 1980, 102, 5449-5453.	13.7	20
103	Theory of High Frequency Differential Interferometry: Application to the Measurement of Infrared Circular and Linear Dichroism via Fourier Transform Spectroscopy. Applied Spectroscopy, 1979, 33, 130-135.	2.2	105
104	Vibrational circular dichroism in amino acids and peptides. 3. Solution- and solid-phase spectra of alanine and serine. Journal of the American Chemical Society, 1979, 101, 6829-6837.	13.7	54
105	Optical activity in vibrational transitions: vibrational circular dichroism and Raman optical activity. Accounts of Chemical Research, 1979, 12, 296-302.	15.6	82
106	Fourier transform infrared vibrational circular dichroism. Journal of the American Chemical Society, 1979, 101, 496-498.	13.7	125
107	Analysis of the gas phase infrared spectrum of bromochlorofluoromethane. Journal of Molecular Spectroscopy, 1978, 71, 446-457.	1.2	16
108	Vibrational circular dichroism in amino acids and peptides. 2. Simple alanyl peptides. Journal of the American Chemical Society, 1978, 100, 5644-5650.	13.7	43

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109	Vibrational circular dichroism in amino acids and peptides. 1. Alanine. Journal of the American Chemical Society, 1977, 99, 8103-8104.	13.7	33