Mark J Tobin

List of Publications by Year in descending order

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104191 93792 5,418 129 39 69 citations g-index h-index papers 135 135 135 7392 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Probing the nature of soil organic matter. Critical Reviews in Environmental Science and Technology, 2022, 52, 4072-4093.	6.6	35
2	Cultural Heritage Project at Australian Nuclear Science and Technology Organisation (ANSTO). , 2022, , 375-441.		O
3	Magnetic field induced alignment of macroradical epoxy for enhanced electrical properties. Soft Matter, 2022, 18, 5194-5203.	1.2	5
4	Optical anisotropy of glancing angle deposited thin films on nano-patterned substrates. Optical Materials Express, 2022, 12, 1281.	1.6	0
5	Anisotropic 3D columnar micro-film coating for applications in infrared and visible spectral ranges. Applied Surface Science, 2022, 590, 152910.	3.1	1
6	Bone loss markers in the earliest Pacific Islanders. Scientific Reports, 2021, 11, 3981.	1.6	5
7	Tracking biochemical changes induced by iron loading in AML12 cells with synchrotron live cell, time-lapse infrared microscopy. Biochemical Journal, 2021, 478, 1227-1239.	1.7	4
8	Co-delivery of inhalable therapies: Controlling active ingredients spatial distribution and temporal release. Materials Science and Engineering C, 2021, 122, 111831.	3.8	2
9	Design of polymeric core-shell carriers for combination therapies. Journal of Colloid and Interface Science, 2021, 587, 499-509.	5.0	14
10	Infrared Based Saliva Screening Test for COVIDâ€19. Angewandte Chemie - International Edition, 2021, 60, 17102-17107.	7.2	42
11	Infrared Based Saliva Screening Test for COVID‶9. Angewandte Chemie, 2021, 133, 17239-17244.	1.6	15
12	"Wax On, Wax Off― In Vivo Imaging of Plant Physiology and Disease with Fourier Transform Infrared Reflectance Microspectroscopy. Advanced Science, 2021, 8, e2101902.	5.6	5
13	Exploiting spatio-spectral aberrations for rapid synchrotron infrared imaging. Journal of Synchrotron Radiation, 2021, 28, 1616-1619.	1.0	10
14	Mapping sub-cellular protein aggregates and lipid inclusions using synchrotron ATR-FTIR microspectroscopy. Analyst, The, 2021, 146, 3516-3525.	1.7	6
15	Anisotropy of 3D Columnar Coatings in Mid-Infrared Spectral Range. Nanomaterials, 2021, 11, 3247.	1.9	3
16	Free-standing spider silk webs of the thomisid Saccodomus formivorus are made of composites comprising micro- and submicron fibers. Scientific Reports, 2020, 10, 17624.	1.6	3
17	Investigation of molecular mechanisms of experimental compounds in murine models of chronic allergic airways disease using synchrotron Fourier-transform infrared microspectroscopy. Scientific Reports, 2020, 10, 11713.	1.6	2
18	Asymmetric midshaft femur remodeling in an adult male with left sided hip joint ankylosis, Metal Period Nagsabaran, Philippines. International Journal of Paleopathology, 2020, 31, 14-22.	0.8	6

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19	The effect of pH on the fat and protein within cream cheese and their influence on textural and rheological properties. Food Chemistry, 2020, 332, 127327.	4.2	25
20	Hyperspectral mapping of anisotropy. Nanoscale Horizons, 2019, 4, 1443-1449.	4.1	26
21	Increased autophagy in EphrinB2-deficient osteocytes is associated with elevated secondary mineralization and brittle bone. Nature Communications, 2019, 10, 3436.	5.8	48
22	Dielectric cross-shaped-resonator-based metasurface for vortex beam generation at mid-IR and THz wavelengths. Nanophotonics, 2019, 8, 1263-1270.	2.9	29
23	Applications of Synchrotron-Source IR Spectroscopy for the Investigation of Insect Wings. , 2019, , .		4
24	Odd-even effects on hydration of natural polyelectrolyte multilayers: An in situ synchrotron FTIR microspectroscopy study. Journal of Colloid and Interface Science, 2019, 553, 720-733.	5.0	14
25	Interaction of Giant Unilamellar Vesicles with the Surface Nanostructures on Dragonfly Wings. Langmuir, 2019, 35, 2422-2430.	1.6	18
26	Structural, thermal, rheological and optical properties of poly(lactic acid) films prepared through solvent casting and melt processing techniques. Journal of the Taiwan Institute of Chemical Engineers, 2019, 104, 293-300.	2.7	26
27	Infrared Polariscopy Imaging of Linear Polymeric Patterns with a Focal Plane Array. Nanomaterials, 2019, 9, 732.	1.9	14
28	Nanoscale optical and structural characterisation of silk. Beilstein Journal of Nanotechnology, 2019, 10, 922-929.	1.5	15
29	Synchrotron macro ATR-FTIR microspectroscopy for high-resolution chemical mapping of single cells. Analyst, The, 2019, 144, 3226-3238.	1.7	74
30	The characterisation of Mozzarella cheese microstructure using high resolution synchrotron transmission and ATR-FTIR microspectroscopy. Food Chemistry, 2019, 291, 214-222.	4.2	25
31	Investigation of oil distribution in spray-dried chia seed oil microcapsules using synchrotron-FTIR microspectroscopy. Food Chemistry, 2019, 275, 457-466.	4.2	36
32	Paracetamol micro-structure analysis by optical mapping. Applied Surface Science, 2019, 473, 127-132.	3.1	17
33	Study of melanin localization in the mature male <i>Calopteryx haemorrhoidalis</i> damselfly wings. Journal of Synchrotron Radiation, 2018, 25, 874-877.	1.0	1
34	Metamorphic records of multiple seismic cycles during subduction. Science Advances, 2018, 4, eaaq0234.	4.7	45
35	Synchrotron infrared microspectroscopy reveals the response of Sphagnum cell wall material to its aqueous chemical environment. Environmental Chemistry, 2018, 15, 513.	0.7	0
36	A Novel Soft Contact Piezo-Controlled Liquid Cell for Probing Polymer Films under Confinement using Synchrotron FTIR Microspectroscopy. Scientific Reports, 2018, 8, 17804.	1.6	8

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37	Soil Organic Carbon Stabilization: Mapping Carbon Speciation from Intact Microaggregates. Environmental Science & Environmenta	4.6	50
38	Focal plane array IR imaging at the Australian Synchrotron. Infrared Physics and Technology, 2018, 94, 85-90.	1.3	11
39	Structure and Chemical Organization in Damselfly Calopteryx haemorrhoidalis Wings: A Spatially Resolved FTIR and XRF Analysis with Synchrotron Radiation. Scientific Reports, 2018, 8, 8413.	1.6	11
40	Pillars of Life: Is There a Relationship between Lifestyle Factors and the Surface Characteristics of Dragonfly Wings?. ACS Omega, 2018, 3, 6039-6046.	1.6	19
41	Revealing the spatial distribution of chemical species within latent fingermarks using vibrational spectroscopy. Analyst, The, 2018, 143, 4027-4039.	1.7	38
42	The susceptibility of Staphylococcus aureus CIP 65.8 and Pseudomonas aeruginosa ATCC 9721 cells to the bactericidal action of nanostructured Calopteryx haemorrhoidalis damselfly wing surfaces. Applied Microbiology and Biotechnology, 2017, 101, 4683-4690.	1.7	71
43	Chemically imaging the interaction of acetylated nanocrystalline cellulose (NCC) with a polylactic acid (PLA) polymer matrix. Cellulose, 2017, 24, 1717-1729.	2.4	45
44	Probing the action of a novel anti-leukaemic drug therapy at the single cell level using modern vibrational spectroscopy techniques. Scientific Reports, 2017, 7, 2649.	1.6	28
45	The effect of thermally induced chemical transformations on the structure and properties of carbon fibre precursors. Journal of Materials Chemistry A, 2017, 5, 7372-7382.	5.2	40
46	Orientational Mapping Augmented Sub-Wavelength Hyper-Spectral Imaging of Silk. Scientific Reports, 2017, 7, 7419.	1.6	36
47	Nanoscale chemical mapping of laser-solubilized silk. Materials Research Express, 2017, 4, 115028.	0.8	17
48	Insect Analogue to the Lotus Leaf: A Planthopper Wing Membrane Incorporating a Low-Adhesion, Nonwetting, Superhydrophobic, Bactericidal, and Biocompatible Surface. ACS Applied Materials & Samp; Interfaces, 2017, 9, 24381-24392.	4.0	68
49	A Multimodal Spectroscopic Imaging Method To Characterize the Metal and Macromolecular Content of Proteinaceous Aggregates ("Amyloid Plaquesâ€). Biochemistry, 2017, 56, 4107-4116.	1.2	55
50	Synchrotron macro ATR-FTIR microspectroscopic analysis of silica nanoparticle-embedded polyester coated steel surfaces subjected to prolonged UV and humidity exposure. PLoS ONE, 2017, 12, e0188345.	1.1	13
51	Evidence of biogeochemical processes in iron duricrust formation. Journal of South American Earth Sciences, 2016, 71, 131-142.	0.6	39
52	Anabolic action of parathyroid hormone (PTH) does not compromise bone matrix mineral composition or maturation. Bone, 2016, 93, 146-154.	1.4	25
53	The Evolution of Silica Nanoparticle-polyester Coatings on Surfaces Exposed to Sunlight. Journal of Visualized Experiments, 2016, , .	0.2	4
54	The nature of inherent bactericidal activity: insights from the nanotopology of three species of dragonfly. Nanoscale, 2016, 8, 6527-6534.	2.8	104

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55	Attenuated Total Reflection FTIR Microspectroscopy at the Australian Synchrotron., 2016,,.		3
56	Mechanisms of murine cerebral malaria: Multimodal imaging of altered cerebral metabolism and protein oxidation at hemorrhage sites. Science Advances, 2015, 1, e1500911.	4.7	25
57	SR-FTIR Coupled with Principal Component Analysis Shows Evidence for the Cellular Bystander Effect. Radiation Research, 2015, 184, 73-82.	0.7	13
58	Synchrotron FTIR microscopy of synthetic and natural CO 2 \hat{a} \in "H 2 O fluid inclusions. Vibrational Spectroscopy, 2014, 75, 136-148.	1.2	6
59	Wing wettability of Odonata species as a function of quantity of epicuticular waxes. Vibrational Spectroscopy, 2014, 75, 173-177.	1.2	12
60	Stability and cytotoxicity of crystallin amyloid nanofibrils. Nanoscale, 2014, 6, 13169-13178.	2.8	21
61	Synchrotron FTIR shows evidence of DNA damage and lipid accumulation in prostate adenocarcinoma PC-3 cells following proton irradiation. Journal of Molecular Structure, 2014, 1073, 134-141.	1.8	35
62	Effect of spatial distribution of wax and PEG-isocyanate on the morphology and hydrophobicity of starch films. Carbohydrate Polymers, 2014, 111, 333-347.	5.1	20
63	Fourier transform infrared microspectroscopy reveals unique phenotypes for human embryonic and induced pluripotent stem cell lines and their progeny. Journal of Biophotonics, 2014, 7, 767-781.	1.1	10
64	Monitoring UVR induced damage in single cells and isolated nuclei using SR-FTIR microspectroscopy and 3D confocal Raman imaging. Analyst, The, 2014, 139, 4200-4209.	1.7	28
65	Discrimination of micromass-induced chondrocytes from human mesenchymal stem cells by focal plane array-Fourier transform infrared microspectroscopy. Talanta, 2014, 130, 39-48.	2.9	8
66	Qualitative spectroscopic characterization of the matrix–silane coupling agent interface across metal fibre reinforced ion exchange resin composite membranes. Vibrational Spectroscopy, 2014, 75, 203-212.	1.2	8
67	Understanding the distribution of natural wax in starch–wax films using synchrotron-based FTIR (S-FTIR). Carbohydrate Polymers, 2014, 102, 125-135.	5.1	57
68	Fourier transform infrared microspectroscopy reveals that tissue culture conditions affect the macromolecular phenotype of human embryonic stem cells. Analyst, The, 2013, 138, 4147.	1.7	16
69	Dual role of outer epicuticular lipids in determining the wettability of dragonfly wings. Colloids and Surfaces B: Biointerfaces, 2013, 106, 126-134.	2.5	64
70	High-spatial-resolution mapping of superhydrophobic cicada wing surface chemistry using infrared microspectroscopy and infrared imaging at two synchrotron beamlines. Journal of Synchrotron Radiation, 2013, 20, 482-489.	1.0	24
71	The Characterisation of Pluripotent and Multipotent Stem Cells Using Fourier Transform Infrared Microspectroscopy. International Journal of Molecular Sciences, 2013, 14, 17453-17476.	1.8	25
72	Instrumentation upgrade for Top-Up operations at the Australian Synchrotron. Journal of Physics: Conference Series, 2013, 425, 042015.	0.3	2

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73	High Spatial Resolution Infrared Micro-Spectroscopy Reveals the Mechanism of Leaf Lignin Decomposition by Aquatic Fungi. PLoS ONE, 2013, 8, e60857.	1.1	19
74	Molecular Organization of the Nanoscale Surface Structures of the Dragonfly Hemianax papuensis Wing Epicuticle. PLoS ONE, 2013, 8, e67893.	1.1	61
75	Synchrotron FTIR Microscopy of Langmuir–Blodgett Monolayers and Polyelectrolyte Multilayers at the Solid–Solid Interface. Langmuir, 2012, 28, 1683-1688.	1.6	10
76	The role of melt-fracture degassing in defusing explosive rhyolite eruptions at $volc\tilde{A}_i$ n Chait \tilde{A} ©n. Earth and Planetary Science Letters, 2012, 333-334, 63-69.	1.8	125
77	The application of Fourier transform infrared microspectroscopy for the study of diseased central nervous system tissue. Neurolmage, 2012, 59, 3624-3640.	2.1	95
78	Spatial Variations and Temporal Metastability of the Self-Cleaning and Superhydrophobic Properties of Damselfly Wings. Langmuir, 2012, 28, 17404-17409.	1.6	55
79	Natural Bactericidal Surfaces: Mechanical Rupture of <i>Pseudomonas aeruginosa</i> Wings. Small, 2012, 8, 2489-2494.	5.2	742
80	Characterisation of chondrogenic differentiation of human mesenchymal stem cells using synchrotron FTIR microspectroscopy. Analyst, The, 2011, 136, 2542.	1.7	26
81	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.	6.5	191
82	Chemical changes demonstrated in cartilage by synchrotron infrared microspectroscopy in an antibody-induced murine model of rheumatoid arthritis. Journal of Biomedical Optics, 2011, 16, 066004.	1.4	12
83	Micrometer-Scale 2D Mapping of the Composition and Homogeneity of Polymer Inclusion Membranes. Australian Journal of Chemistry, 2011, 64, 930.	0.5	15
84	Microanalysis of artworks: IR microspectroscopy of paint cross-sections. Vibrational Spectroscopy, 2010, 53, 77-82.	1.2	11
85	Synchrotron radiation infrared microspectroscopy of arsenic-induced changes to intracellular biomolecules in live leukemia cells. Vibrational Spectroscopy, 2010, 53, 39-44.	1.2	38
86	FTIR spectroscopy of single live cells in aqueous media by synchrotron IR microscopy using microfabricated sample holders. Vibrational Spectroscopy, 2010, 53, 34-38.	1.2	98
87	One-Step Method for Generating PEG-Like Plasma Polymer Gradients: Chemical Characterization and Analysis of Protein Interactions. Langmuir, 2010, 26, 13987-13994.	1.6	48
88	Early detection of the chemical changes occurring during the induction and prevention of autoimmune-mediated demyelination detected by FT-IR imaging. NeuroImage, 2010, 49, 1180-1189.	2.1	64
89	Silicon nitride as a versatile growth substrate for microspectroscopic imaging and mapping of individual cells. Molecular BioSystems, 2010, 6, 1316.	2.9	72
90	Chapter 10. Head and Neck Cancer: Observations from Synchrotron-sourced Mid-infrared Spectroscopy Investigations. Metal lons in Life Sciences, 2010, , 291-314.	1.0	0

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91	The emergence of biospectroscopy in stem cell research. Stem Cell Research, 2009, 3, 12-14.	0.3	25
92	Discriminating the Intraerythrocytic Lifecycle Stages of the Malaria Parasite Using Synchrotron FT-IR Microspectroscopy and an Artificial Neural Network. Analytical Chemistry, 2009, 81, 2516-2524.	3.2	42
93	Challenges in Biology and Medicine with Synchrotron Infrared Light. Acta Physica Polonica A, 2009, 115, 446-454.	0.2	15
94	Ro-vibrational analysis of the $\hat{l}\frac{1}{2}$ 9 and $\hat{l}\frac{1}{2}$ 16 bands of R152a. Journal of Molecular Spectroscopy, 2008, 251, 256-260.	0.4	3
95	Mineralised organic remains from cesspits at the Roman town of Silchester: Processes and preservation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 71, 854-861.	2.0	9
96	High resolution synchrotron FTIR spectroscopy of the far infrared $\hat{l}\frac{1}{2}10$ and $\hat{l}\frac{1}{2}11$ bands of R152a (CH3CHF2). Chemical Physics Letters, 2008, 465, 203-206.	1.2	11
97	Estimating and Correcting Mie Scattering in Synchrotron-Based Microscopic Fourier Transform Infrared Spectra by Extended Multiplicative Signal Correction. Applied Spectroscopy, 2008, 62, 259-266.	1.2	158
98	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.	3.2	70
99	Infrared Spectroscopy with Multivariate Analysis Potentially Facilitates the Segregation of Different Types of Prostate Cell. Biophysical Journal, 2006, 90, 3783-3795.	0.2	129
100	Characterization of Putative Stem Cell Populations in the Cornea Using Synchrotron Infrared Microspectroscopy., 2006, 47, 2417.		53
101	The kinetics of the 2Ï€+2Ï€ photodimerisation reactions of single-crystalline derivatives of trans-cinnamic acid: A study by infrared microspectroscopy. Journal of Molecular Structure, 2006, 786, 220-226.	1.8	27
102	Neutron and X-ray characterisation of the metallurgical properties of a 7th century BC Corinthian-type bronze helmet. Nuclear Instruments & Methods in Physics Research B, 2005, 239, 16-26.	0.6	23
103	Mapping of nutrient-induced biochemical changes in living algal cells using synchrotron infrared microspectroscopy. FEMS Microbiology Letters, 2005, 249, 219-225.	0.7	112
104	Advantages of the Use of SR-FT-IR Microspectroscopy:  Applications to Cultural Heritage. Analytical Chemistry, 2005, 77, 3444-3451.	3.2	102
105	4GLSâ€"the UKÂs fourth generation light source at Daresbury: new prospects in biological surface science. Journal of Physics Condensed Matter, 2004, 16, S2405-S2412.	0.7	7
106	Adenovirus Type-5 Entry and Disassembly Followed in Living Cells by FRET, Fluorescence Anisotropy, and FLIM. Biophysical Journal, 2004, 87, 1316-1327.	0.2	46
107	An in situ time-dependent study of the photodimerisation of chloro-derivatives of trans-cinnamic acid using infrared microspectroscopy with a synchrotron radiation source. Physical Chemistry Chemical Physics, 2004, 6, 4.	1.3	21
108	Infrared microscopy of epithelial cancer cells in whole tissues and in tissue culture, using synchrotron radiation. Faraday Discussions, 2004, 126, 27.	1.6	69

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109	Molecular characterization of cyanobacterial silicification using synchrotron infrared micro-spectroscopy. Geochimica Et Cosmochimica Acta, 2004, 68, 729-741.	1.6	156
110	Wishful physics – some common misconceptions about InGaN. Physica Status Solidi A, 2003, 195, 532-536.	1.7	8
111	Lipid diffusion in the thylakoid membranes of the cyanobacterium Synechococcus sp.: effect of fatty acid desaturation. FEBS Letters, 2003, 553, 295-298.	1.3	41
112	Near-field photothermal Fourier transform infrared spectroscopy using synchrotron radiation. Measurement Science and Technology, 2002, 13, 1217-1222.	1.4	27
113	4GLS: a fourth-generation light source that for the biomedical scientist is more than a laser and more than a storage ring. , 2002, , .		4
114	Fourier-transform infrared spectroscopy of Pediastrum duplex: characterization of a micro-population isolated from a eutrophic lake. European Journal of Phycology, 2002, 37, 19-26.	0.9	63
115	Preformed Oligomeric Epidermal Growth Factor Receptors Undergo an Ectodomain Structure Change during Signaling. Biophysical Journal, 2002, 82, 2415-2427.	0.2	110
116	Intracellular localisation studies of doxorubicin and Victoria Blue BO in EMT6-S and EMT6-R cells using confocal microscopy. Cytotechnology, 2002, 39, 15-25.	0.7	14
117	Oil Distribution in Fried Potatoes Monitored by Infrared Microspectroscopy. Journal of Food Science, 2001, 66, 918-923.	1.5	112
118	Diffusion of Phycobilisomes on the Thylakoid Membranes of the Cyanobacterium Synechococcus 7942. Journal of Biological Chemistry, 2001, 276, 46830-46834.	1.6	120
119	Biologically Interfaced Porous Silicon Devices. Physica Status Solidi A, 2000, 182, 505-513.	1.7	98
120	Nature of the Silicon-Animal Cell Interface. Journal of Porous Materials, 2000, 7, 191-195.	1.3	81
121	The culture of neurons on silicon. Sensors and Actuators A: Physical, 1999, 74, 139-142.	2.0	86
122	Confocal microscopy and spectroscopy of InGaN epilayers on sapphire. Journal of Microscopy, 1999, 193, 105-108.	0.8	9
123	<title>Synchrotron IR microspectroscopy of malignant tissue</title> ., 1999, , .		0
124	Infrared spectroscopy and microscopy at the Daresbury synchrotron light source. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1998, 20, 439-448.	0.4	7
125	A facility for confocal imaging and microvolume fluorescence lifetime spectroscopy at the SRS. Synchrotron Radiation News, 1998, 11, 24-30.	0.2	1
126	Subnanosecond polarized microfluorimetry in the time domain: An instrument for studying receptor trafficking in live cells. Review of Scientific Instruments, 1998, 69, 540-543.	0.6	11

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127	Mobility of photosynthetic complexes in thylakoid membranes. Nature, 1997, 390, 421-424.	13.7	216
128	Confocal imaging using synchrotron radiation. Journal of Electron Spectroscopy and Related Phenomena, 1996, 80, 343-347.	0.8	1
129	A high sensitivity timeâ€resolved microfluorimeter for realâ€time cell biology. Review of Scientific Instruments, 1996, 67, 3716-3721.	0.6	10