

Lisa M Miller

List of Publications by Year in descending order

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82
papers

5,324
citations

76326

40
h-index

82547

72
g-index

83
all docs

83
docs citations

83
times ranked

6668
citing authors

#	ARTICLE	IF	CITATIONS
1	Lanthanide-Binding Tags for 3D X-ray Imaging of Proteins in Cells at Nanoscale Resolution. Journal of the American Chemical Society, 2020, 142, 2145-2149.	13.7	27
2	Copper stabilizes antiparallel β -sheet fibrils of the amyloid $A\beta_{40}$ (A β_{40})-Iowa variant. Journal of Biological Chemistry, 2020, 295, 8914-8927.	3.4	7
3	Infrared spectroscopy and imaging for understanding neurodegenerative protein-misfolding diseases. , 2020, , 121-142.		2
4	Copper accumulation and the effect of chelation treatment on cerebral amyloid angiopathy compared to parenchymal amyloid plaques. Metallomics, 2020, 12, 539-546.	2.4	16
5	Infrared Spectroscopy Using Synchrotron Radiation. , 2018, , 1-9.		0
6	X-ray Fluorescence Nanotomography of Single Bacteria with a Sub-15-nm Beam. Scientific Reports, 2018, 8, 13415.	3.3	28
7	Interpretation of solution scattering data from lipid nanodiscs. Journal of Applied Crystallography, 2018, 51, 157-166.	4.5	19
8	Imaging Nutrient Distribution in the Rhizosphere Using FTIR Imaging. Analytical Chemistry, 2017, 89, 4831-4837.	6.5	12
9	<i>In situ</i> examination of osteoblast biomineralization on sulfonated polystyrene-modified substrates using Fourier transform infrared microspectroscopy. Biointerphases, 2017, 12, 031001.	1.6	1
10	Rapid alignment of nanotomography data using joint iterative reconstruction and reprojection. Scientific Reports, 2017, 7, 11818.	3.3	75
11	Enhancing digestibility and ethanol yield of Populus wood via expression of an engineered monoglucosyltransferase. Nature Communications, 2016, 7, 11989.	12.8	61
12	HBM Mice Have Altered Bone Matrix Composition and Improved Material Toughness. Calcified Tissue International, 2016, 99, 384-395.	3.1	5
13	Bone Matrix Composition Following PTH Treatment is Not Dependent on Sclerostin Status. Calcified Tissue International, 2016, 98, 149-157.	3.1	8
14	Misfolded opsin mutants display elevated β -sheet structure. FEBS Letters, 2015, 589, 3119-3125.	2.8	18
15	Characterization of Protein Structural Changes in Living Cells Using Time-Lapsed FTIR Imaging. Analytical Chemistry, 2015, 87, 6025-6031.	6.5	35
16	Metal-deficient aggregates and diminished copper found in cells expressing SOD1 mutations that cause ALS. Frontiers in Aging Neuroscience, 2014, 6, 110.	3.4	52
17	Alterations in Collagen and Mineral Nanostructure Observed in Osteoporosis and Pharmaceutical Treatments Using Simultaneous Small- and Wide-Angle X-ray Scattering. Calcified Tissue International, 2014, 95, 446-456.	3.1	21
18	Bone Matrix Quality After Sclerostin Antibody Treatment. Journal of Bone and Mineral Research, 2014, 29, 1597-1607.	2.8	38

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19	Discrimination Between Paraffin-Embedded and Frozen Skin Sections Using Synchrotron Infrared Microspectroscopy. <i>International Journal of Peptide Research and Therapeutics</i> , 2014, 20, 13-17.	1.9	1
20	Amide 1 Expression in Psoriasis and Lichen Planus using Synchrotron Infrared Microspectroscopy. <i>International Journal of Peptide Research and Therapeutics</i> , 2013, 19, 203-207.	1.9	0
21	Biochemical Changes Observed After PUVA Versus PUVA Plus Methotrexate Therapy in Mycosis Fungoides Using Synchrotron Infrared Microspectroscopy. <i>International Journal of Peptide Research and Therapeutics</i> , 2013, 19, 209-215.	1.9	0
22	Fourier Transform Infrared Imaging as a Tool to Chemically and Spatially Characterize Matrix-Mineral Deposition in Osteoblasts. <i>Calcified Tissue International</i> , 2013, 92, 50-58.	3.1	7
23	FTIR spectroscopic imaging of protein aggregation in living cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2013, 1828, 2339-2346.	2.6	241
24	Dynamic Full-Field Infrared Imaging with Multiple Synchrotron Beams. <i>Analytical Chemistry</i> , 2013, 85, 3599-3605.	6.5	36
25	Elevated copper in the amyloid plaques and iron in the cortex are observed in mouse models of Alzheimer's disease that exhibit neurodegeneration. <i>Biomedical Spectroscopy and Imaging</i> , 2013, 2, 129-139.	1.2	50
26	Altered Composition of Bone as Triggered by Irradiation Facilitates the Rapid Erosion of the Matrix by Both Cellular and Physicochemical Processes. <i>PLoS ONE</i> , 2013, 8, e64952.	2.5	39
27	Acetylase-Mediated Deacetylation of Pectin Impairs Cell Elongation, Pollen Germination, and Plant Reproduction. <i>Plant Cell</i> , 2012, 24, 50-65.	6.6	132
28	Biophysical and Structural Characterization of a Sequence-diverse Set of Solute-binding Proteins for Aromatic Compounds. <i>Journal of Biological Chemistry</i> , 2012, 287, 23748-23756.	3.4	15
29	Amifostine, a radioprotectant agent, protects rat brain tissue lipids against ionizing radiation induced damage: An FTIR microspectroscopic imaging study. <i>Archives of Biochemistry and Biophysics</i> , 2012, 520, 67-73.	3.0	101
30	Changes in intracortical microporosities induced by pharmaceutical treatment of osteoporosis as detected by high resolution micro-CT. <i>Bone</i> , 2012, 50, 596-604.	2.9	63
31	Imaging the Material Properties of Bone Specimens Using Reflection-Based Infrared Microspectroscopy. <i>Analytical Chemistry</i> , 2012, 84, 3607-3613.	6.5	43
32	Deletion of Cx43 from Osteocytes Results in Defective Bone Material Properties but Does Not Decrease Extrinsic Strength in Cortical Bone. <i>Calcified Tissue International</i> , 2012, 91, 215-224.	3.1	57
33	Metal imaging in neurodegenerative diseases. <i>Metallomics</i> , 2012, 4, 721.	2.4	109
34	Overexpression of DMP1 accelerates mineralization and alters cortical bone biomechanical properties in vivo. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 5, 1-8.	3.1	28
35	Synchrotron Infrared Microspectroscopy Detecting the Evolution of Huntington's Disease Neuropathology and Suggesting Unique Correlates of Dysfunction in White versus Gray Brain Matter. <i>Analytical Chemistry</i> , 2011, 83, 7712-7720.	6.5	23
36	Increased brain iron coincides with early plaque formation in a mouse model of Alzheimer's disease. <i>NeuroImage</i> , 2011, 55, 32-38.	4.2	123

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37	Bisphosphonates do not alter the rate of secondary mineralization. <i>Bone</i> , 2011, 49, 701-705.	2.9	42
38	Copper and Zinc Metallation Status of Copper-Zinc Superoxide Dismutase from Amyotrophic Lateral Sclerosis Transgenic Mice. <i>Journal of Biological Chemistry</i> , 2011, 286, 2795-2806.	3.4	112
39	From structure to cellular mechanism with infrared microspectroscopy. <i>Current Opinion in Structural Biology</i> , 2010, 20, 649-656.	5.7	118
40	The use of synchrotron infrared microspectroscopy in the assessment of cutaneous T-cell lymphoma vs. pityriasis lichenoides chronica. <i>Photodermatology Photoimmunology and Photomedicine</i> , 2010, 26, 93-97.	1.5	10
41	Fourier Transform Infrared Imaging Showing Reduced Unsaturated Lipid Content in the Hippocampus of a Mouse Model of Alzheimer's Disease. <i>Analytical Chemistry</i> , 2010, 82, 2711-2716.	6.5	68
42	In vitro efficiency and mechanistic role of indocyanine green as photodynamic therapy agent for human melanoma. <i>Photodiagnosis and Photodynamic Therapy</i> , 2009, 6, 105-116.	2.6	49
43	Amyloid plaques in PSAPP mice bind less metal than plaques in human Alzheimer's disease. <i>NeuroImage</i> , 2009, 47, 1215-1220.	4.2	117
44	Strontium ranelate does not stimulate bone formation in ovariectomized rats. <i>Osteoporosis International</i> , 2008, 19, 1331-1341.	3.1	69
45	Compositional characterization and imaging of cell-wall-bound acylesters of <i>Populus trichocarpa</i> reveal differential accumulation of acyl molecules in normal and reactive woods. <i>Planta</i> , 2008, 229, 15-24.	3.2	45
46	In situ examination of the time-course for secondary mineralization of Haversian bone using synchrotron Fourier transform infrared microspectroscopy. <i>Matrix Biology</i> , 2008, 27, 34-41.	3.6	77
47	Changes in protein structure and distribution observed at pre-clinical stages of scrapie pathogenesis. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2008, 1782, 559-565.	3.8	20
48	Technical Report: The Diversity of Infrared Programs at the NSLS. <i>Synchrotron Radiation News</i> , 2007, 20, 25-34.	0.8	2
49	Accretion of Bone Quantity and Quality in the Developing Mouse Skeleton. <i>Journal of Bone and Mineral Research</i> , 2007, 22, 1037-1045.	2.8	138
50	A new sample substrate for imaging and correlating organic and trace metal composition in biological cells and tissues. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 387, 1705-1715.	3.7	33
51	Chemical imaging of biological tissue with synchrotron infrared light. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 846-857.	2.6	324
52	FTIR-microspectroscopy of prion-infected nervous tissue. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 948-959.	2.6	77
53	Chemical makeup of microdamaged bone differs from undamaged bone. <i>Bone</i> , 2006, 39, 318-324.	2.9	55
54	Low-level mechanical vibrations can influence bone resorption and bone formation in the growing skeleton. <i>Bone</i> , 2006, 39, 1059-1066.	2.9	218

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55	Synchrotron-based infrared and X-ray imaging shows focalized accumulation of Cu and Zn co-localized with β -amyloid deposits in Alzheimer's disease. <i>Journal of Structural Biology</i> , 2006, 155, 30-37.	2.8	521
56	Beta-amyloid deposition and Alzheimer's type changes induced by <i>Borrelia</i> spirochetes. <i>Neurobiology of Aging</i> , 2006, 27, 228-236.	3.1	172
57	Determining the oxidation states of manganese in NT2 cells and cultured astrocytes. <i>Neurobiology of Aging</i> , 2006, 27, 1816-1826.	3.1	36
58	Infrared imaging of compositional changes in inflammatory cardiomyopathy. <i>Vibrational Spectroscopy</i> , 2005, 38, 217-222.	2.2	42
59	In situ characterization of prion protein structure and metal accumulation in scrapie-infected cells by synchrotron infrared and X-ray imaging. <i>Vibrational Spectroscopy</i> , 2005, 38, 61-69.	2.2	41
60	Synchrotrons versus globars, point-detectors versus focal plane arrays: Selecting the best source and detector for specific infrared microspectroscopy and imaging applications. <i>Vibrational Spectroscopy</i> , 2005, 38, 237-240.	2.2	97
61	Determining the oxidation states of manganese in PC12 and nerve growth factor-induced PC12 cells. <i>Free Radical Biology and Medicine</i> , 2005, 39, 164-181.	2.9	32
62	Development and applications of an epifluorescence module for synchrotron x-ray fluorescence microprobe imaging. <i>Review of Scientific Instruments</i> , 2005, 76, 066107.	1.3	6
63	Determination of the oxidation states of manganese in brain, liver, and heart mitochondria. <i>Journal of Neurochemistry</i> , 2004, 88, 266-280.	3.9	71
64	Comparison of Fourier transform infrared (FTIR) spectra of individual cells acquired using synchrotron and conventional sources. <i>Infrared Physics and Technology</i> , 2004, 45, 331-338.	2.9	64
65	Alterations in mineral composition observed in osteoarthritic joints of cynomolgus monkeys. <i>Bone</i> , 2004, 35, 498-506.	2.9	44
66	Combining high-resolution micro-computed tomography with material composition to define the quality of bone tissue. <i>Current Osteoporosis Reports</i> , 2003, 1, 11-19.	3.6	76
67	Chemical heterogeneity in cell death: Combined synchrotron IR and fluorescence microscopy studies of single apoptotic and necrotic cells. <i>Biopolymers</i> , 2003, 72, 366-373.	2.4	107
68	The use of synchrotron infrared microspectroscopy in biological and biomedical investigations. <i>Vibrational Spectroscopy</i> , 2003, 32, 3-21.	2.2	204
69	Tissue mineralization is increased following 1-year treatment with high doses of bisphosphonates in dogs. <i>Bone</i> , 2003, 33, 960-969.	2.9	93
70	In situ identification of protein structural changes in prion-infected tissue. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2003, 1639, 152-158.	3.8	72
71	In situ chemistry of osteoporosis revealed by synchrotron infrared microspectroscopy. <i>Bone</i> , 2003, 33, 514-521.	2.9	72
72	Combining IR spectroscopy with fluorescence imaging in a single microscope: Biomedical applications using a synchrotron infrared source (invited). <i>Review of Scientific Instruments</i> , 2002, 73, 1357-1360.	1.3	42

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73	Following matrix metalloproteinases activity near the cell boundary by infrared micro-spectroscopy. <i>Matrix Biology</i> , 2002, 21, 567-577.	3.6	29
74	XANES Spectroscopy: A Promising Tool for Toxicology. <i>NeuroToxicology</i> , 2002, 23, 127-146.	3.0	37
75	In situ analysis of mineral content and crystallinity in bone using infrared micro-spectroscopy of the ν_2 PO ₄ ³⁻ vibration. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2001, 1527, 11-19.	2.4	201
76	Design and implementation of a rapid-mixer flow cell for time-resolved infrared microspectroscopy. <i>Review of Scientific Instruments</i> , 2000, 71, 4057.	1.3	14
77	Low frequency vibrations of amino acid homopolymers observed by synchrotron far-ir absorption spectroscopy: Excited state effects dominate the temperature dependence of the spectra. <i>Biopolymers</i> , 1999, 49, 591-603.	2.4	40
78	<title>Analysis of bone protein and mineral composition in bone disease using synchrotron infrared microspectroscopy</title>. , 1999, , .		7
79	Applications of infrared microspectroscopy to geology, biology and cosmetics. <i>Synchrotron Radiation News</i> , 1998, 11, 31-37.	0.8	10
80	Synchrotron infrared microspectroscopy as a means of studying the chemical composition of bone: applications to osteoarthritis. , 1997, , .		5
81	Identification of Conformational Substates Involved in Nitric Oxide Binding to Ferric and Ferrous Myoglobin through Difference Fourier Transform Infrared Spectroscopy (FTIR). <i>Biochemistry</i> , 1997, 36, 12199-12207.	2.5	104
82	Time-resolved x-ray absorption spectroscopy on microsecond timescales: Implications for the examination of structural motions. <i>Review of Scientific Instruments</i> , 1993, 64, 2035-2036.	1.3	16