

Shigeaki Morita

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

2,413
citations

236833

25
h-index

206029

48
g-index

75
all docs

75
docs citations

75
times ranked

2013
citing authors

#	ARTICLE	IF	CITATIONS
1	A new approach to removing interference of moisture from FTIR spectrum. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 265, 120373.	2.0	11
2	Use of Near-Infrared and Mid-Infrared Dual-Wavelength Spectrometry to Obtain Two-Dimensional Difference Spectra of Sesame Oil as Inactive Drug Ingredient. <i>Applied Spectroscopy</i> , 2021, 75, 385-394.	1.2	2
3	Role of interfacial water in determining the interactions of proteins and cells with hydrated materials. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 198, 111449.	2.5	31
4	Understanding phase transition and vibrational mode coupling in ammonium nitrate using 2D correlation Raman spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 254, 119581.	2.0	9
5	Different hydration states and passive tumor targeting ability of polyethylene glycol-modified dendrimers with high and low PEG density. <i>Materials Science and Engineering C</i> , 2021, 126, 112159.	3.8	16
6	Chemometrics and Related Fields in Python. <i>Analytical Sciences</i> , 2020, 36, 107-111.	0.8	16
7	Real-time determination and visualization of two independent quantities during a manufacturing process of pharmaceutical tablets by near-infrared hyperspectral imaging combined with multivariate analysis. <i>International Journal of Pharmaceutics</i> , 2020, 590, 119871.	2.6	12
8	A novel systematic absence of cross peaks-based 2D-COS approach for bilinear data. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 220, 117103.	2.0	19
9	Novel Method of Constructing Two-Dimensional Correlation Spectroscopy without Subtracting a Reference Spectrum. <i>Journal of Physical Chemistry A</i> , 2018, 122, 788-797.	1.1	19
10	Multivariate curve resolution using a combination of mid-infrared and near-infrared spectra for the analysis of isothermal epoxy curing reaction. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 197, 114-120.	2.0	10
11	In Situ ATR-IR Spectroscopy Combined with Chemometrics for the Analysis of a Polymer Membrane. <i>Bunseki Kagaku</i> , 2018, 67, 179-186.	0.1	1
12	Surface force and vibrational spectroscopic analyses of interfacial water molecules in the vicinity of methoxy-tri(ethylene glycol)-terminated monolayers: mechanisms underlying the effect of lateral packing density on bioinertness. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2017, 28, 1231-1243.	1.9	22
13	Moving-window two-dimensional correlation spectroscopy and perturbation-correlation moving-window two-dimensional correlation spectroscopy. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2017, 168, 114-120.	1.8	31
14	Temperature dependence of isothermal curing reaction of epoxy resin studied by modulated differential scanning calorimetry and infrared spectroscopy. <i>Journal of Molecular Structure</i> , 2016, 1124, 249-255.	1.8	14
15	Moving-Window Two-Dimensional Heterospectral (MW2DHetero) Correlation Analysis and Its Application for the Process Monitoring of Alcoholic Fermentation. <i>Applied Spectroscopy</i> , 2015, 69, 665-670.	1.2	8
16	Intercorrelation between Interfacial Behavior of Water and Biocompatibility. <i>Hyomen Kagaku</i> , 2015, 36, 424-429.	0.0	1
17	Developing dissolution testing methodologies for extended-release oral dosage forms with supersaturating properties. Case example: Solid dispersion matrix of indomethacin. <i>International Journal of Pharmaceutics</i> , 2015, 490, 368-374.	2.6	10
18	In-situ spectroscopic monitoring of Jatropha oil combustion properties. <i>Renewable Energy</i> , 2014, 63, 775-778.	4.3	7

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19	Effect of Sodium Chloride on Hydration Structures of PMEA and P(MPC- <i>r</i> -BMA). <i>Langmuir</i> , 2014, 30, 10698-10703.	1.6	31
20	Identification of the epoxy curing mechanism under isothermal conditions by thermal analysis and infrared spectroscopy. <i>Journal of Molecular Structure</i> , 2014, 1069, 164-170.	1.8	21
21	Hydrogen-bonds structure in poly(2-hydroxyethyl methacrylate) studied by temperature-dependent infrared spectroscopy. <i>Frontiers in Chemistry</i> , 2014, 2, 10.	1.8	74
22	Thermal Behavior of Poly(lactic acid)-Nanocomposite Studied by Near-Infrared Imaging Based on Roundtrip Temperature Scan. <i>Applied Spectroscopy</i> , 2014, 68, 371-378.	1.2	10
23	Durability of Nafion-hydrophilic silica hybrid membrane against trace radical species in polymer electrolyte fuel cells. <i>Microchemical Journal</i> , 2013, 108, 60-63.	2.3	9
24	The roles of water molecules at the biointerface of medical polymers. <i>Polymer Journal</i> , 2013, 45, 701-710.	1.3	216
25	Thermal degradation of a poly(vinyl alcohol) film studied by multivariate curve resolution analysis. <i>Polymer</i> , 2013, 54, 2130-2137.	1.8	10
26	2D spectroscopic observation on effect of nitrogen species on CH abundance and morphology of carbonaceous film by plasma-enhanced CVD. <i>Microchemical Journal</i> , 2013, 106, 373-377.	2.3	1
27	Chemical degradation of Nafion ionomer at a catalyst interface of polymer electrolyte fuel cell by hydrogen and oxygen feeding in the anode. <i>Microchemical Journal</i> , 2013, 106, 384-388.	2.3	13
28	Visualization of Two-Dimensional Excitation Temperatures in CH ₄ /N ₂ /Ar Plasmas for Preparation of Carbonaceous Materials. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2013, 135, .	1.4	2
29	Two-Step Curing Reaction of Epoxy Resin Studied by Thermal Analysis and Infrared Spectroscopy. <i>Applied Spectroscopy</i> , 2012, 66, 926-933.	1.2	17
30	Infrared Emission Spectroscopic Imaging of a Combustion Flame. <i>Bunseki Kagaku</i> , 2012, 61, 275-279.	0.1	1
31	Hydration structure of trifluoromethanesulfonate studied by quantum chemical calculations. <i>Computational and Theoretical Chemistry</i> , 2012, 982, 30-33.	1.1	5
32	Spectroscopic visualization of CH in methane/hydrogen plasmas for synthesis of carbonaceous materials and surface micromorphology. <i>Microchemical Journal</i> , 2012, 104, 38-43.	2.3	1
33	Effect of baseline drift on perturbationâ€‘correlation moving-window two-dimensional correlation spectroscopy. <i>Vibrational Spectroscopy</i> , 2012, 60, 217-219.	1.2	9
34	Time-resolved conformational analysis of poly(ethylene oxide) during the hydrogelling process. <i>Polymer</i> , 2011, 52, 5560-5566.	1.8	5
35	Epoxy curing reaction studied by using two-dimensional correlation infrared and near-infrared spectroscopy. <i>Journal of Applied Polymer Science</i> , 2011, 119, 871-881.	1.3	20
36	Release mechanisms of acetaminophen from polyethylene oxide/polyethylene glycol matrix tablets utilizing magnetic resonance imaging. <i>International Journal of Pharmaceutics</i> , 2010, 395, 147-153.	2.6	30

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37	Temperature-dependent structure changes in Nafion ionomer studied by PCMW2D IR correlation spectroscopy. <i>Journal of Molecular Structure</i> , 2010, 974, 56-59.	1.8	31
38	Hydration Structure of Poly(2-methoxyethyl acrylate): Comparison with a 2-Methoxyethyl Acetate Model Monomer. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010, 21, 1925-1935.	1.9	19
39	Near-Infrared Imaging of Water in a Polymer Electrolyte Membrane during a Fuel Cell Operation. <i>Analytical Chemistry</i> , 2010, 82, 9221-9224.	3.2	0
40	Hydration Structure of a Nafion Membrane in a Polymer Electrolyte Fuel Cell. , 2010, , .		0
41	Hydrogen-bond structures in poly(2-hydroxyethyl methacrylate): Infrared spectroscopy and quantum chemical calculations with model compounds. <i>Vibrational Spectroscopy</i> , 2009, 51, 28-33.	1.2	38
42	Hydration mechanism on a poly(methacrylic acid) film studied by in situ attenuated total reflection infrared spectroscopy. <i>Polymer</i> , 2009, 50, 5765-5770.	1.8	13
43	Variable-Temperature Fourier Transform Infrared Spectroscopic Investigations of Poly(3-Hydroxyalkanoates) and Perturbation-Correlation Moving-Window Two-Dimensional Correlation Analysis. Part I: Study of Non-Annealed and Annealed Poly(3-Hydroxybutyrate) Homopolymer. <i>Applied Spectroscopy</i> , 2009, 63, 1027-1033.	1.2	27
44	Variable-Temperature Fourier Transform Infrared Spectroscopic Investigations of Poly(3-Hydroxyalkanoates) and Perturbation-Correlation Moving-Window Two-Dimensional Correlation Analysis. Part II: Study of Poly(μ -Caprolactone) Homopolymer and a Poly(3-Hydroxybutyrate)â€™Poly(μ -Caprolactone) Blend. <i>Applied Spectroscopy</i> , 2009, 63, 1034-1040.	1.2	28
45	Spectroscopic Monitoring of Energy Systems (Calvin W. Rice Lecture). , 2009, , .		0
46	Combustion diagnostics by laser spectrometry. , 2009, , .		0
47	Perturbation-correlation moving-window 2D correlation analysis of temperature-dependent infrared spectra of a poly(vinyl alcohol) film. <i>Journal of Molecular Structure</i> , 2008, 883-884, 181-186.	1.8	35
48	Multivariate Curve Resolution Analysis on the Multi-Component Water Sorption Process into a Poly(2-methoxyethyl Acrylate) Film. <i>Applied Spectroscopy</i> , 2008, 62, 46-50.	1.2	17
49	Two-Dimensional Imaging of Water Vapor by Near-Infrared Laser Absorption Spectroscopy. <i>Applied Spectroscopy</i> , 2008, 62, 1216-1220.	1.2	2
50	Thermal Degradation of Poly(3-hydroxybutyrate) and Poly(3-hydroxybutyrate- <i>co</i> -3-hydroxyhexanoate) in Nitrogen and Oxygen Studied by Thermogravimetricâ€™Fourier Transform Infrared Spectroscopy. <i>Applied Spectroscopy</i> , 2007, 61, 755-764.	1.2	33
51	Phase Angle Description of Perturbation Correlation Analysis and its Application to Time-Resolved Infrared Spectra. <i>Applied Spectroscopy</i> , 2007, 61, 867-872.	1.2	16
52	Measurement of One-dimensional Water Distribution in a Polymer Electrolyte Membrane for Fuel Cell with a Near-infrared Laser. , 2007, , .		0
53	Temperature-Dependent Changes in Hydrogen Bonds in Cellulose I β Studied by Infrared Spectroscopy in Combination with Perturbation-Correlation Moving-Window Two-Dimensional Correlation Spectroscopy:â€™ Comparison with Cellulose I β . <i>Biomacromolecules</i> , 2007, 8, 2969-2975.	2.6	95
54	Time-Resolved In Situ ATR-IR Observations of the Process of Sorption of Water into a Poly(2-methoxyethyl acrylate) Film. <i>Langmuir</i> , 2007, 23, 3750-3761.	1.6	169

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55	Study on Temperature-Dependent Changes in Hydrogen Bonds in Cellulose I ^β by Infrared Spectroscopy with Perturbation-Correlation Moving-Window Two-Dimensional Correlation Spectroscopy. <i>Biomacromolecules</i> , 2006, 7, 3164-3170.	2.6	109
56	Perturbation-Correlation Moving-Window Two-Dimensional Correlation Spectroscopy. <i>Applied Spectroscopy</i> , 2006, 60, 398-406.	1.2	244
57	Temperature-Dependent Structural Changes in Hydrogen Bonds in Microcrystalline Cellulose Studied by Infrared and Near-Infrared Spectroscopy with Perturbation-Correlation Moving-Window Two-Dimensional Correlation Analysis. <i>Applied Spectroscopy</i> , 2006, 60, 611-618.	1.2	91
58	New Method for Spectral Data Classification: Two-Way Moving Window Principal Component Analysis. <i>Applied Spectroscopy</i> , 2006, 60, 884-891.	1.2	21
59	A Study on Water Adsorption onto Microcrystalline Cellulose by Near-Infrared Spectroscopy with Two-Dimensional Correlation Spectroscopy and Principal Component Analysis. <i>Applied Spectroscopy</i> , 2006, 60, 1054-1061.	1.2	61
60	Drying process of microcrystalline cellulose studied by attenuated total reflection IR spectroscopy with two-dimensional correlation spectroscopy and principal component analysis. <i>Journal of Molecular Structure</i> , 2006, 799, 102-110.	1.8	72
61	Effect of the window size in moving-window two-dimensional correlation analysis. <i>Journal of Molecular Structure</i> , 2006, 799, 28-33.	1.8	30
62	Computational simulations and a practical application of moving-window two-dimensional correlation spectroscopy. <i>Journal of Molecular Structure</i> , 2006, 799, 111-120.	1.8	68
63	Effect of band position shift on moving-window two-dimensional correlation spectroscopy. <i>Journal of Molecular Structure</i> , 2006, 799, 16-22.	1.8	49
64	Polymer Surface Explored by Infrared Spectroscopy and Atomic Force Microscopy. <i>Journal of the Adhesion Society of Japan</i> , 2005, 41, 183-195.	0.0	0
65	Hydrogen Bonding on the Surface of Poly(2-methoxyethyl acrylate). <i>Journal of the American Chemical Society</i> , 2004, 126, 12198-12199.	6.6	89
66	Effect of glass transition temperature (T _g) on the absorption of bisphenol A in poly(acrylate)s thin films. <i>Vibrational Spectroscopy</i> , 2004, 35, 15-19.	1.2	26
67	Quartz Crystal Microbalance and Infrared Reflection Absorption Spectroscopy Characterization of Bisphenol A Absorption in the Poly(acrylate) Thin Films. <i>Analytical Chemistry</i> , 2004, 76, 788-795.	3.2	23
68	Cd ²⁺ -Induced Interfacial Structural Changes of Langmuir-Blodgett Films of Stearic Acid on Solid Substrates: A Sum Frequency Generation Study. <i>Langmuir</i> , 2004, 20, 357-365.	1.6	90
69	Rotational behavior of the fluorescent probe molecules near the critical point of phase separation. <i>Physica B: Condensed Matter</i> , 2003, 327, 108-115.	1.3	2
70	Structural Changes in Poly(2-methoxyethyl acrylate) Thin Films Induced by Absorption of Bisphenol A. An Infrared and Sum Frequency Generation (SFG) Study. <i>Macromolecules</i> , 2003, 36, 5694-5703.	2.2	96
71	Surface Molecular Structures of Langmuir-Blodgett Films of Stearic Acid on Solid Substrates Studied by Sum Frequency Generation Spectroscopy. <i>Langmuir</i> , 2003, 19, 2238-2242.	1.6	80
72	Polymer chain conformation in the phase separation process of a binary liquid mixture. <i>European Polymer Journal</i> , 2002, 38, 1863-1870.	2.6	18