Heinz Wilhelm Siesler

List of Publications by Year
in descending order

167 papers	6,193 citations	71061 41 h-index	85498 71 g-index
186 all docs	186 docs citations	186 times ranked	5421 citing authors

#	Article	IF	Citations
1	Wavelength Interval Selection in Multicomponent Spectral Analysis by Moving Window Partial Least-Squares Regression with Applications to Mid-Infrared and Near-Infrared Spectroscopic Data. Analytical Chemistry, 2002, 74, 3555-3565.	3.2	405
2	A FTIR and 2D-IR Spectroscopic Study on the Microdynamics Phase Separation Mechanism of the Poly(N-isopropylacrylamide) Aqueous Solution. Macromolecules, 2008, 41, 1512-1520.	2.2	278
3	Novel Side-Chain Liquid Crystalline Polyester Architecture for Reversible Optical Storage. Macromolecules, 1995, 28, 2172-2183.	2.2	275
4	In-Situ Studies of Structure Development during Deformation of a Segmented Poly(urethaneâˆ’urea) Elastomer. Macromolecules, 2003, 36, 1940-1954.	2.2	236
5	Recent advances on chitosan-based films for sustainable food packaging applications. Food Packaging and Shelf Life, 2020, 26, 100551.	3.3	200
6	Comprehensive characterization of active chitosan-gelatin blend films enriched with different essential oils. Food Hydrocolloids, 2019, 95, 33-42.	5.6	197
7	New Developments and Applications of Handheld Raman, Mid-Infrared, and Near-Infrared Spectrometers. Applied Spectroscopy Reviews, 2012, 47, 83-115.	3.4	175
8	Characterization of bio-nanocomposite films based on gelatin/polyvinyl alcohol blend reinforced with bacterial cellulose nanowhiskers for food packaging applications. Food Hydrocolloids, 2021, 113, 106454.	5.6	128
9	Difference of the Crystal Structure of Cellulose in Wood after Hydrothermal and Aging Degradation: A NIR Spectroscopy and XRD Study. Biomacromolecules, 2010, 11, 2300-2305.	2.6	125
10	Rheo-optical Fourier-Transform infrared spectroscopy: Vibrational spectra and mechanical properties of polymers. , 1984, , 1-77.		121
11	Near-Infrared Spectroscopic Monitoring of the Diffusion Process of Deuterium-Labeled Molecules in Wood. Part I: Softwood. Applied Spectroscopy, 2003, 57, 667-674.	1.2	120
12	Raman spectra of high-density, low-density, and linear low-density polyethylene pellets and prediction of their physical properties by multivariate data analysis. Journal of Applied Polymer Science, 2002, 86, 443-448.	1.3	119
13	Development of antimicrobial films based on chitosan-polyvinyl alcohol blend enriched with ethyl lauroyl arginate (LAE) for food packaging applications. Food Hydrocolloids, 2020, 100, 105419.	5.6	115
14	New Highly Fluorinated Styrene-Based Materials with Low Surface Energy Prepared by ATRP. Macromolecules, 2004, 37, 788-794.	2.2	110
15	Molecular Structure, Crystallinity and Morphology of Polyethylene/Polypropylene Blends Studied by Raman Mapping, Scanning Electron Microscopy, Wide Angle X-Ray Diffraction, and Differential Scanning Calorimetry. Polymer Journal, 2006, 38, 1127-1136.	1.3	107
16	Comparative analysis of blend and bilayer films based on chitosan and gelatin enriched with LAE (lauroyl arginate ethyl) with antimicrobial activity for food packaging applications. Food Packaging and Shelf Life, 2019, 19, 31-39.	3.3	103
17	Handheld near-infrared spectrometers: Where are we heading?. NIR News, 2020, 31, 28-35.	1.6	96
18	2D FT-NIR and FT-IR correlation analysis of temperature-induced changes of nylon12. Chemical Physics Letters, 1998, 283, 326-332.	1.2	94

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19	Thermal Degradation of Poly(Îµâ€caprolactone), Poly(Lâ€lactic acid) and their Blends with Poly(3â€hydroxyâ€butyrate) Studied by TGA/FTâ€IR Spectroscopy. Macromolecular Symposia, 2008, 265, 183-194.	0.4	89
20	FT-IR Imaging Spectroscopy of Phase Separation in Blends of Poly(3-hydroxybutyrate) with Poly(<scp>l</scp>-lactic acid) and Poly(Îµ-caprolactone). Biomacromolecules, 2008, 9, 523-527.	2.6	81
21	Qualitative and Quantitative Pharmaceutical Analysis with a Novel Hand-Held Miniature near Infrared Spectrometer. Journal of Near Infrared Spectroscopy, 2013, 21, 445-457.	0.8	75
22	Near-infrared spectroscopic observation of the ageing process in archaeological wood using a deuterium exchange method. Analyst, The, 2005, 130, 379.	1.7	74
23	Nearâ€infrared spectroscopy of polymers. Makromolekulare Chemie Macromolecular Symposia, 1991, 52, 113-129.	0.6	69
24	Photoorientation of a Liquid Crystalline Polyester with Azobenzene Side Groups. 1. Effects of Irradiation with Linearly Polarized Blue Lightâ€. Journal of Physical Chemistry A, 2002, 106, 3454-3462.	1.1	65
25	Solid state characterization of olanzapine polymorphs using vibrational spectroscopy. International Journal of Pharmaceutics, 2006, 326, 69-79.	2.6	65
26	Selectively Deuterated Liquid Crystalline Cyanoazobenzene Side-Chain Polyesters. 3. Investigations of Laser-Induced Segmental Mobility by Fourier Transform Infrared Spectroscopy. Macromolecules, 1998, 31, 2141-2151.	2.2	63
27	Near-Infrared Spectroscopic Monitoring of the Diffusion Process of Deuterium-Labeled Molecules in Wood. Part II: Hardwood. Applied Spectroscopy, 2003, 57, 675-681.	1.2	63
28	Rheo-Optical Fourier Transform Infrared and Raman Spectroscopy of Polymers. Applied Spectroscopy, 1993, 47, 1531-1539.	1.2	55
29	FT-IR Spectroscopic Imaging of Anisotropic Poly(3-hydroxybutyrate)/Poly(lactic acid) Blends with Polarized Radiation. Macromolecules, 2008, 41, 2975-2977.	2.2	52
30	Two-Dimensional/ATR Infrared Correlation Spectroscopic Study on Water Diffusion in a Poly(Îµ-caprolactone) Matrix. Biomacromolecules, 2003, 4, 1041-1044.	2.6	51
31	Morphology and Deformation Mechanisms and Tensile Properties of Tetrafunctional Multigraft Copolymers. Macromolecules, 2009, 42, 4155-4164.	2.2	51
32	Hand-held near-infrared spectrometers: State-of-the-art instrumentation and practical applications. NIR News, 2018, 29, 8-12.	1.6	49
33	Reorientation of Nematic Liquid-Crystals and Liquid-Crystalline Polymers in an Electric Field Studied by FT-IR Time-Resolved Spectroscopy and 2D-Correlation Analysis. Journal of Physical Chemistry B, 1997, 101, 374-380.	1.2	47
34	Rheo-optical fourier transform IR (FTIR) spectroscopy of polyurethane elastomers. Polymer Bulletin, 1983, 9, 557-562.	1.7	46
35	On the explanation of the biphotonic processes in polyesters containing azobenzene moieties in the side chain. Macromolecular Rapid Communications, 1995, 16, 455-461.	2.0	46
36	Monitoring the melt-extrusion transesterification of ethyleneâ€“vinylacetate copolymer by self-modeling curve resolution analysis of on-line near-infrared spectra. Analyst, The, 2000, 125, 2315-2321.	1.7	45

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37	Photoorientation of a Liquid-Crystalline Polyester with Azobenzene Side Groups:Â Effects of Irradiation with Linearly Polarized Red Light after Photochemical Pretreatmentâ€. Macromolecules, 2003, 36, 9373-9382.	2.2	45
38	In Situ Study of Diffusion and Interaction of Water and Mono- or Divalent Anions in a Positively Charged Membrane Using Two-Dimensional Correlation FT-IR/Attenuated Total Reflection Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 2880-2887.	1.2	45
39	Quantitative analysis of a pharmaceutical formulation: Performance comparison of different handheld near-infrared spectrometers. Journal of Pharmaceutical and Biomedical Analysis, 2018, 160, 179-186.	1.4	45
40	Molecular Weight Dependence of the Thermal Degradation of Poly(Îµ-caprolactone): A Thermogravimetric Differential Thermal Fourier Transform Infrared Spectroscopy Study. Applied Spectroscopy, 2010, 64, 805-809.	1.2	44
41	Near Infrared Spectroscopic Authentication of Seafood. Journal of Near Infrared Spectroscopy, 2013, 21, 299-305.	0.8	44
42	Identification Performance of Different Types of Handheld Near-Infrared (NIR) Spectrometers for the Recycling of Polymer Commodities. Applied Spectroscopy, 2018, 72, 1362-1370.	1.2	44
43	Miniature near-infrared (NIR) spectrometer engine for handheld applications. Proceedings of SPIE, 2012, , .	0.8	40
44	The characterization of polymer deformation by rheoâ€optical fourierâ€transform infrared spectroscopy. Makromolekulare Chemie Macromolecular Symposia, 1992, 53, 89-103.	0.6	37
45	Fourier-transform infrared study of the switching process in a ferroelectric liquid crystalline polymer. Macromolecular Rapid Communications, 1995, 16, 125-130.	2.0	36
46	Segmental Mobility of Liquid Crystals and Liquid Crystalline Polymers in an Electric Field: A Study by Time-Resolved Rapid-Scan and Step-Scan FTIR Spectroscopy. Applied Spectroscopy Reviews, 1996, 31, 125-165.	3.4	35
47	Conformational polymorphism of the antidiabetic drug chlorpropamide. Journal of Raman Spectroscopy, 2012, 43, 263-272.	1.2	35
48	Segmental Orientation in Well-Defined Thermoplastic Elastomers Containing Supramolecular Fillers. Macromolecules, 2009, 42, 524-530.	2.2	34
49	An ab initio and DFT study of structure and vibrational spectra of Î³ form of Oleic acid: Comparison to experimental data. Chemistry and Physics of Lipids, 2010, 163, 207-217.	1.5	34
50	Rheo-optical Fourier-transform infrared (FTIR) spectroscopy of polymers. Colloid and Polymer Science, 1984, 262, 223-229.	1.0	33
51	Side-chain Liquid Crystalline Polyesters for Optical Information Storage. Polymers for Advanced Technologies, 1996, 7, 768-776.	1.6	33
52	The Assignment of Overtone and Combination Bands in the near Infrared Spectrum of Polyamide 11. Journal of Near Infrared Spectroscopy, 1999, 7, 65-76.	0.8	33
53	Thermal Degradation of Poly(3-hydroxybutyrate) and Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) in Nitrogen and Oxygen Studied by Thermogravimetricâ€“Fourier Transform Infrared Spectroscopy. Applied Spectroscopy, 2007, 61, 755-764.	1.2	33
54	Monitoring the staling of wheat bread using 2D MIR-NIR correlation spectroscopy. Journal of Cereal Science, 2017, 75, 92-99.	1.8	32

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55	Rheo-Optical Fourier Transform Infrared Spectroscopy of Polymers. 10: Strain-Induced Crystallization of Sulfur-Crosslinked Natural Rubber during Cyclic Deformation. Applied Spectroscopy, 1985, 39, 761-765.	1.2	31
56	Discrimination of various poly(propylene) copolymers and prediction of their ethylene content by near-infrared and Raman spectroscopy in combination with chemometric methods. Journal of Applied Polymer Science, 2003, 87, 616-625.	1.3	31
57	Polymorphism incidence in commercial tablets of mebendazole: a vibrational spectroscopy investigation. Journal of Raman Spectroscopy, 2008, 39, 1150-1157.	1.2	31
58	Quantitative Determination of Pharmaceutical Drug Formulations by Near-Infrared Spectroscopic Imaging. Applied Spectroscopy, 2008, 62, 1200-1208.	1.2	31
59	Identification of textiles by handheld near infrared spectroscopy: Protecting customers against product counterfeiting. Journal of Near Infrared Spectroscopy, 2018, 26, 311-321.	0.8	31
60	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(Îµ-Caprolactone) Homopolymer and a Poly(3-Hydroxybutyrate)â€"Poly(Îµ-Caprolactone) Blend. Applied Spectroscopy, 2009, 63, 1034-1040.	1.2	28
61	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. Applied Spectroscopy, 2009, 63, 1027-1033.	1.2	27
62	Water uptake of poly(2-N-alkyl-2-oxazoline)s: influence of crystallinity and hydrogen-bonding on the mechanical properties. Journal of Materials Chemistry, 2011, 21, 17331.	6.7	27
63	Near Infrared Spectra of Pellets and Thin Films of High-Density, Low-Density and Linear Low-Density Polyethylenes and Prediction of Their Physical Properties by Multivariate Data Analysis. Journal of Near Infrared Spectroscopy, 2003, 11, 309-321.	0.8	26
64	Rheo-optical FT-IR spectroscopy of poly(3-hydroxybutyrate)/poly(lactic acid) blend films. Vibrational Spectroscopy, 2009, 49, 284-287.	1.2	26
65	In SituOrientation Studies of a Poly(3-hydroxybutyrate)/Poly(Îµ-caprolactone) Blend by Rheo-Optical Fourier Transform Infrared Spectroscopy and Two-Dimensional Correlation Spectroscopic Analysis. Applied Spectroscopy, 2009, 63, 1351-1355.	1.2	24
66	2DCOS and PCMW2D analysis of FT-IR/ATR spectra measured at variable temperatures on-line to a polyurethane polymerization. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 478-482.	2.0	24
67	Hand-Held Near-Infrared Spectroscopy for Authentication of Fengdous and Quantitative Analysis of Mulberry Fruits. Frontiers in Plant Science, 2019, 10, 1548.	1.7	24
68	In situ monitoring of an isocyanate reaction by fiber-optic FT-IR/ATR-spectroscopy. Vibrational Spectroscopy, 2007, 43, 217-220.	1.2	22
69	Deformation Behavior of Sphere-Forming Trifunctional Multigraft Copolymer. Macromolecules, 2008, 41, 4565-4568.	2.2	22
70	Molecular Structure and Vibrational Spectroscopic Investigation of Secnidazole Using Density Functional Theory. Journal of Physical Chemistry A, 2009, 113, 273-281.	1.1	22
71	Characterization of molecular order in solid polymers by rheo-optical Fourier-transform infrared spectroscopy: recent advances. Pure and Applied Chemistry, 1985, 57, 1603-1616.	0.9	21
72	The diffusion of alcohols and water in polyamide 11: A study by fourierâ€transform nearâ€infrared spectroscopy. Macromolecular Symposia, 1999, 143, 323-336.	0.4	21

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73	Near Infrared Spectroscopic Analysis of Hydrocarbon Contaminants in Soil with a Hand-Held Spectrometer. Journal of Near Infrared Spectroscopy, 2013, 21, 511-521.	0.8	21
74	Application of Mid Infrared/Near Infrared Spectroscopy in Sugar Industry. Applied Spectroscopy Reviews, 2003, 38, 307-354.	3.4	20
75	Simultaneous Determination of the Micro-, Meso-, and Macropore Size Fractions of Porous Polymers by a Combined Use of Fourier Transform Near-Infrared Diffuse Reflection Spectroscopy and Multivariate Techniques. Analytical Chemistry, 2008, 80, 8493-8500.	3.2	20
76	Vibrational Spectroscopy of Polymers. International Journal of Polymer Analysis and Characterization, 2011, 16, 519-541.	0.9	20
77	Spectra Transfer Between a Fourier Transform Near-Infrared Laboratory and a Miniaturized Handheld Near-Infrared Spectrometer. Applied Spectroscopy, 2016, 70, 852-860.	1.2	20
78	Polarized infrared spectroscopic study on the orientation of the molecules in the smectic-C*phase of a ferroelectric liquid crystal with a naphthalene ring:â€ƒAlternative theory for the analysis of polarization-angle-dependent intensity changes. Physical Review E, 2001, 64, 031704.	0.8	18
79	Rheoâ€Optical Fourierâ€Transform Infrared Spectroscopy of Polymers 14. Segmental Orientation and Strainâ€Induced Crystallization of a Poly(Ether Urethaneurea) Elastomer. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1988, 92, 641-645.	0.9	17
80	Near-infrared light-fiber spectroscopic reaction monitoring of the synthesis of diphenylurethane. Fresenius' Journal of Analytical Chemistry, 1998, 362, 109-113.	1.5	17
81	Quantitative Determination of Quality Parameters and Authentication of Vodka Using near Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2010, 18, 59-67.	0.8	17
82	Variable-Temperature Fourier Transform Near-Infrared (FT-NIR) Imaging Spectroscopy of the Diffusion Process of Butanol(OD) into Polyamide 11. Applied Spectroscopy, 2011, 65, 1051-1055.	1.2	17
83	Evaluating the Molecular Interaction of Organic Liquid Mixtures Using Near-Infrared Spectroscopy. Applied Spectroscopy, 2016, 70, 635-644.	1.2	17
84	Characterization of deformation phenomena in polymers by rapid-scanning fourier transform IR (FTIR) spectroscopy and mechanical measurements. Polymer Bulletin, 1981, 4, 166.	1.7	16
85	Rheo-optical fourier transform IR (FTIR) spectroscopy of polyurethane elastomers. Polymer Bulletin, 1983, 9, 417.	1.7	16
86	Fourier-Transform Raman Spectroscopic On-Line Monitoring of the Anionic Dispersion Block Copolymerization of Styrene and 1,3-Butadiene. Macromolecular Rapid Communications, 2001, 22, 690-693.	2.0	16
87	On-Line Monitoring of Melt-Extrusion Transesterification of Ethylene Vinylacetate Copolymers by near Infrared Spectroscopy and Chemometrics. Journal of Near Infrared Spectroscopy, 2002, 10, 195-202.	0.8	16
88	Observation of a Penetration Depth Gradient in Attenuated Total Reflection Fourier Transform Infrared Spectroscopic Imaging Applications. Applied Spectroscopy, 2006, 60, 1488-1492.	1.2	15
89	Fourier Transform Infrared Spectroscopic Imaging of Anisotropic Poly(Vinylidene Fluoride) Films with Polarized Radiation. Applied Spectroscopy, 2008, 62, 599-603.	1.2	15
90	Water Uptake of Poly(2-N-Alkyl-2-Oxazoline)s: Temperature-Dependent Fourier Transform Infrared (FT-IR) Spectroscopy and Two-Dimensional Correlation Analysis (2DCOS). Applied Spectroscopy, 2012, 66, 1145-1155.	1.2	15

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91	Molecular order and orientation in aromatic polyamide fibers by internal reflection spectroscopy and wide angle X-ray diffraction. Polymer Engineering and Science, 1977, 17, 93-95.	1.5	14
92	Characterization of Polymer Deformation by Vibrational Spectroscopy. , 0, , 138-166.		14
93	The switching process in a ferroelectric liquid crystalline side-chain polymer by time-resolved step-scan FT-IR spectroscopy and 2D correlation analysis. Vibrational Spectroscopy, 1998, 18, 17-23.	1.2	14
94	Polycondensation Reaction of Bis(Hydroxyethylterephthalate)â€"Self Modeling Curve Resolution Analysis of On-Line ATR/FT-IR Spectra. Applied Spectroscopy, 2001, 55, 1181-1191.	1.2	14
95	An experimental study on the â€œsequential orderâ€•rules in generalized two-dimensional correlation spectroscopy. Vibrational Spectroscopy, 2009, 51, 263-269.	1.2	14
96	Crystallization Behavior of Poly(3â€hydroxybutyrate) (PHB), Poly(Îµâ€caprolactone) (PCL) and Their Blend (50:50â€‰wt.%) Studied by 2D FTâ€IR Correlation Spectroscopy. Macromolecular Symposia, 2011, 305, 90-100.	0.4	14
97	Title is missing!. Die Makromolekulare Chemie, 1989, 190, 2653-2663.	1.1	13
98	Two-Dimensional Correlation Analysis of Time-Resolved Step-Scan FT-IR Spectra of a Liquid Crystalline Guestâ€"Host System in an Electric Field. Applied Spectroscopy, 1997, 51, 1698-1702.	1.2	13
99	Fourier Transform NIR Study of Liquid Diffusion Processes in Nylon 11 Films:Â Comparison of Water with Alcohols. Chemistry of Materials, 2003, 15, 2752-2756.	3.2	13
100	Low-Temperature FT-NIR Spectroscopy of Strain-Induced Orientation and Crystallization in a Poly(dimethylsiloxane) Network. Macromolecular Rapid Communications, 2005, 26, 1093-1098.	2.0	13
101	Solvent Interactions in Methanol/N, N-Dimethylamide Binary Systems Studied by Fourier Transform Infraredâ€“Attenuated Total Reflection (FT-IR/ATR) and Two-Dimensional Correlation Spectroscopy (2D-COS). Applied Spectroscopy, 2011, 65, 892-900.	1.2	13
102	Sequential Identification of Model Parameters by Derivative Double Two-Dimensional Correlation Spectroscopy and Calibration-Free Approach for Chemical Reaction Systems. Analytical Chemistry, 2012, 84, 8330-8339.	3.2	13
103	Rapid Determination of Nutritional Parameters of Pasta/Sauce Blends by Handheld Near-Infrared Spectroscopy. Molecules, 2019, 24, 2029.	1.7	13
104	Rheo-optical fourier transform infrared spectroscopy of polyurethanes and their blends with polyolefins. Macromolecular Chemistry and Physics, 1997, 198, 2057-2072.	1.1	12
105	Molecular Structure, Crystallinity, and Morphology of Uncompatibilized and Compatibilized Blends of Polyethylene/Nylon 12. Macromolecular Chemistry and Physics, 2003, 204, 1351-1358.	1.1	12
106	Resolution of two-way data from on-line Fourier-transform Raman spectroscopic monitoring of the anionic dispersion polymerization of styrene and 1,3-butadiene by parallel vector analysis (PVA) and window factor analysis (WFA). Chemometrics and Intelligent Laboratory Systems, 2004, 70, 83-92.	1.8	12
107	2DCOS and PCMW2D analyses of FT-IR/ATR and FT-NIR spectra monitoring the deuterium/hydrogen exchange in liquid D2O. Journal of Molecular Structure, 2014, 1069, 258-263.	1.8	12
108	3D FT-IR imaging spectroscopy of phase-separation in a poly(3-hydroxybutyrate)/poly(l -lactic acid) blend. Vibrational Spectroscopy, 2014, 75, 169-172.	1.2	12

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109	Rapid analysis of wheat flour by different handheld near-infrared spectrometers: A discussion of calibration model maintenance and performance comparison. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 252, 119504.	2.0	12
110	Rheoâ€optical fourierâ€transform infrared spectroscopy of polymers 12. Variable temperature studies of strainâ€induced crystallization in sulfurâ€crosslinked natural rubber. Makromolekulare Chemie Macromolecular Symposia, 1986, 5, 151-155.	0.6	11
111	Analysis of orientational relaxation in binary blends of uniform polystyrene by rheo-optical Fourier-transform infrared spectroscopy. Macromolecular Rapid Communications, 1994, 15, 467-473.	2.0	11
112	The Influence of Spectral Resolution on the Quantitative near Infrared Spectroscopic Determination of an Active Ingredient in a Solid Drug Formulation. Journal of Near Infrared Spectroscopy, 2004, 12, 271-277.	0.8	11
113	Molecular orientation relaxation in binary blends of poly(methyl methacrylate) by rheo-optical Fourier-transform infrared spectroscopy. Macromolecular Chemistry and Physics, 1998, 199, 667-675.	1.1	10
114	Rheo-optical FT-IR Spectroscopy of LLDPE: Effect of Comonomer and Composite Materials. Macromolecular Symposia, 2008, 265, 166-177.	0.4	10
115	Fourier Transform Infrared Imaging Spectroscopy of the Diffusion Process of D2O into Polyamide 11. Applied Spectroscopy, 2009, 63, 1-5.	1.2	10
116	Two-Dimensional Correlation Analysis of Temperature-Dependent FT-IR Spectra of Oleic Acid. Spectroscopy Letters, 2013, 46, 21-27.	0.5	10
117	Variable-temperature Fourier-transform infrared studies of poly(l-lactic acid) in different states of order: A 2DCOS and PCMW2D analysis. Journal of Molecular Structure, 2016, 1124, 256-261.	1.8	10
118	The influence of substituents on the orientational behaviour of novel azobenzene sideâ€chain polyesters. Macromolecular Symposia, 1995, 94, 159-170.	0.4	9
119	Novel Fluorinated Polymer Materials Based on 2,3,5,6-Tetrafluoro-4-methoxystyrene. ACS Symposium Series, 2003, , 236-249.	0.5	9
120	Thermal Stability of Dehydrophenylalanine-Containing Model Peptides as Probed by Infrared Spectroscopy: a Case Study of anÎ±-Helical and a310-Helical Peptide. Chemistry and Biodiversity, 2006, 3, 284-295.	1.0	9
121	Near-Infrared Hyperspectral Imaging in Food and Agricultural Science. , 0, , 259-294.		9
122	Temperature-Dependent Fourier Transform Infrared Spectroscopy and Raman Mapping Spectroscopy of Phase-Separation in a Poly(3-hydroxybutyrate)â€“Poly(l-Lactic Acid) Blend. Applied Spectroscopy, 2013, 67, 141-148.	1.2	9
123	Electric-Field-Induced Reorientation of Liquid Crystalline p-Cyanophenyl-p-n-Alkylbenzoates: A Time-Resolved Study by Fourier Transform Infrared Transmission and Attenuated Total Reflection Spectroscopy. Applied Spectroscopy, 2003, 57, 499-505.	1.2	8
124	Cobalticenium-bridged polybenzazoles: 1. Low temperature solution polymerization. Polymer, 1976, 17, 423-428.	1.8	7
125	The destructionâ€free analysis of polymers by fourier transform infrared photoacoustic and fourier transform Raman spectroscopy: A comparison. Makromolekulare Chemie Macromolecular Symposia, 1991, 52, 175-189.	0.6	7
126	Rheo-optical FT-Raman study of uniaxially stretched poly(vinylidene fluoride). Macromolecular Chemistry and Physics, 1995, 196, 815-824.	1.1	7

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127	Time-Resolved Step-Scan FT-IR Spectroscopy of a Nematic Solution of 2-Naphthaldehyde in an Electric Field. Applied Spectroscopy, 1997, 51, 447-449.	1.2	7
128	Time-resolved infrared spectroscopic study of the switching dynamics of a surface-stabilized ferroelectric liquid crystal. Physical Review E, 2002, 65, 021710.	0.8	7
129	Dynamics of a Ferroelectric Liquid Crystal with a Naphthalene Ring during Electric-Field-Induced Switching Studied by Time-Resolved Infrared Spectroscopy Combined with Two-Dimensional Correlation Spectroscopy. Applied Spectroscopy, 2003, 57, 1063-1069.	1.2	7
130	Influence of laminate thickness reduction on the deformation mechanism of coextruded multilayered PC/PMMA films. Journal of Applied Polymer Science, 2013, 127, 4262-4272.	1.3	7
131	Characterization of Polyether and Polyester Homo- and Copolymers Prepared by Ring Opening Polymerization with a New Catalytic System. Macromolecules, 1977, 10, 284-287.	2.2	6
132	Vibrational Spectroscopy of Polymers. Advances in Chemistry Series, 1993, , 41-87.	0.6	6
133	Rheoâ€optical fourierâ€transform infrared spectroscopy of polymers 16 orientation and strainâ€induced conformational regularity of poly(dimethylsiloxane) networks during cyclic elongation and recovery. Makromolekulare Chemie Macromolecular Symposia, 1993, 72, 191-199.	0.6	6
134	Quantitative Analysis of Organic Liquid Three-Component Systems: Near-Infrared Transmission versus Raman Spectroscopy, Partial Least Squares versus Classical Least Squares Regression Evaluation and Volume versus Weight Percent Concentration Units. Molecules, 2019, 24, 3564.	1.7	6
135	Selectively Deuterated Liquid Crystalline Cyanoazobenzene Side-Chain Polyesters. 2. Preparation and Characterization of Polyesters. Molecular Crystals and Liquid Crystals, 1998, 319, 231-258.	0.3	5
136	ATR-FT-IR Imaging for Pharmaceutical and Polymeric Materials: From Micro to Macro Approaches. , 0, , 347-375.		5
137	Modeling of Isomeric Structure of Diphenyl Urethane by FT-IR Spectroscopy During Synthesis from Phenylisocyanate and Phenol as an Inverse Kinetic Problem. Journal of Physical Chemistry A, 2011, 115, 8832-8844.	1.1	5
138	Activation and Thermodynamic Parameter Study of the Heteronuclear Câ•OÂ·Â·Â·Hâ€“N Hydrogen Bonding of Diphenylurethane Isomeric Structures by FT-IR Spectroscopy Using the Regularized Inversion of an Eigenvalue Problem. Journal of Physical Chemistry A, 2012, 116, 7797-7808.	1.1	5
139	Variable-Temperature Fourier Transform Near-Infrared Imaging Spectroscopy of the Deuterium/Hydrogen Exchange in Liquid D₂O. Applied Spectroscopy, 2014, 68, 603-607.	1.2	5
140	Comparative Variable Temperature Studies of Polyamide II with a Benchtop Fourier Transform and a Miniature Handheld Near-Infrared Spectrometer Using 2D-COS and PCMW-2D Analysis. Applied Spectroscopy, 2016, 70, 1202-1208.	1.2	5
141	Fourier-Transform Raman Spectroscopy of Polymers. Oil & Gas Science & Technology, 1993, 48, 223-237.	0.2	5
142	Diffuse reflectance fourier transform infrared studies of the reinforcement/coupling agent interface of composites. Mikrochimica Acta, 1988, 94, 319-322.	2.5	4
143	Dynamic Fourier transform infrared spectroscopy in polymer research. Mikrochimica Acta, 1988, 94, 323-328.	2.5	4
144	Rheo-optical Fourier transform infrared spectroscopy of a liquid-crystalline block copolymer. Polymer Bulletin, 1996, 36, 87-94.	1.7	4

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145	Selectively Deuterated Liquid Crystalline Cyanoazobenzene Side-Chain Polyesters. 1. Preparation and Characterization of Precursors and Diols. Molecular Crystals and Liquid Crystals, 1998, 319, 207-230.	0.3	4
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