Sergei G Kazarian

List of Publications by Citations

261 papers	12,270 citations	55 h-index	97 g-index
271 ext. papers	13,210 ext. citations	5 avg, IF	6.74 L-index

#	Paper	IF	Citations
261	Molecular states of water in room temperature ionic liquids. *Physical Chemistry Chemical Physics*, **2001**, 3, 5192-5200	3.6	1264
260	Specific Intermolecular Interaction of Carbon Dioxide with Polymers. *Journal of the American Chemical Society*, **1996**, 118, 1729-1736	16.4	700
259	Combining ionic liquids and supercritical fluids: in situ ATR-IR study of CO2 dissolved in two ionic liquids at high pressures. *Chemical Communications*, **2000**, 2047-2048	5.8	342
258	ATR-FTIR spectroscopic imaging: recent advances and applications to biological systems. *Analyst, The*, **2013**, 138, 1940-51	5	258
257	Applications of ATR-FTIR spectroscopic imaging to biomedical samples. *Biochimica Et Biophysica Acta - Biomembranes*, **2006**, 1758, 858-67	3.8	256
256	Spectroscopy of polymer/drug formulations processed with supercritical fluids: in situ ATR-IR and Raman study of impregnation of ibuprofen into PVP. *International Journal of Pharmaceutics*, **2002**, 232, 81-90	6.5	199
255	New opportunities in micro- and macro-attenuated total reflection infrared spectroscopic imaging: spatial resolution and sampling versatility. *Applied Spectroscopy*, **2003**, 57, 381-9	3.1	186
254	Swellable, water- and acid-tolerant polymer sponges for chemoselective carbon dioxide capture. *Journal of the American Chemical Society*, **2014**, 136, 9028-35	16.4	175
253	The use of murine embryonic stem cells, alginate encapsulation, and rotary microgravity bioreactor in bone tissue engineering. *Biomaterials*, **2009**, 30, 499-507	15.6	161
252	Electrochemical nanoprobes for single-cell analysis. *ACS Nano*, **2014**, 8, 875-84	16.7	158
251	Recent applications of ATR FTIR spectroscopy and imaging to proteins. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2013**, 1834, 2849-58	4	158
250	Micro- and macro-attenuated total reflection Fourier transform infrared spectroscopic imaging. Plenary Lecture at the 5th International Conference on Advanced Vibrational Spectroscopy, 2009, Melbourne, Australia. *Applied Spectroscopy*, **2010**, 64, 135A-152A	3.1	158
249	Quantitative Equilibrium Constants between CO2 and Lewis Bases from FTIR Spectroscopy. *The Journal of Physical Chemistry*, **1996**, 100, 10837-10848		145
248	Attenuated total reflection Fourier-transform infrared (ATR-FTIR) imaging of tissues and live cells. *Chemical Society Reviews*, **2016**, 45, 1850-64	58.5	144
247	Vibrational Spectroscopy in Supercritical Fluids: From Analysis and Hydrogen Bonding to Polymers and Synthesis. *Angewandte Chemie International Edition in English*, **1995**, 34, 1275-1295		139
246	Chemical Photography of Drug Release. *Macromolecules*, **2003**, 36, 9866-9872	5.5	138
245	Applications of attenuated total reflection infrared spectroscopic imaging to pharmaceutical formulations. *Analytical Chemistry*, **2003**, 75, 2140-6	7.8	118

244	Clinical applications of infrared and Raman spectroscopy: state of play and future challenges. *Analyst, The*, **2018**, 143, 1735-1757	5	114
243	Chemical imaging of live cancer cells in the natural aqueous environment. *Applied Spectroscopy*, **2009**, 63, 164-71	3.1	113
242	ATR-FTIR imaging for the analysis of organic materials in paint cross sections: case studies on paint samples from the National Gallery, London. *Analytical and Bioanalytical Chemistry*, **2008**, 392, 37-45	4.4	107
241	Spectroscopic imaging of latent fingermarks collected with the aid of a gelatin tape. *Analytical Chemistry*, **2007**, 79, 5771-6	7.8	104
240	Membrane transport of hydrocortisone acetate from supersaturated solutions; the role of polymers. *International Journal of Pharmaceutics*, **2001**, 221, 95-105	6.5	103
239	FTIR Imaging of Polymeric Materials under High-Pressure Carbon Dioxide. *Macromolecules*, **2004**, 37, 579-584	5.5	98
238	In situ Spectroscopy of Polymers Subjected to Supercritical CO2: Plasticization and Dye Impregnation. *Applied Spectroscopy*, **1997**, 51, 491-494	3.1	96
237	Chemical imaging of microfluidic flows using ATR-FTIR spectroscopy. *Lab on A Chip*, **2009**, 9, 2909-13	7.2	95
236	Combined approach of FTIR imaging and conventional dissolution tests applied to drug release. *Journal of Controlled Release*, **2004**, 98, 295-305	11.7	95
235	Characterization of genuine and fake artesunate anti-malarial tablets using Fourier transform infrared imaging and spatially offset Raman spectroscopy through blister packs. *Analytical and Bioanalytical Chemistry*, **2007**, 389, 1525-32	4.4	94
234	An ATRIR Study of Poly (Dimethylsiloxane) under High-Pressure Carbon Dioxide:Simultaneous Measurement of Sorption and Swelling. *Journal of Physical Chemistry B*, **2002**, 106, 754-759	3.4	94
233	Chemical imaging of latent fingerprint residues. *Applied Spectroscopy*, **2007**, 61, 514-22	3.1	89
232	Detection of trace materials with Fourier transform infrared spectroscopy using a multi-channel detector. *Analyst, The*, **2006**, 131, 126-31	5	89
231	Combined Fourier-transform infrared imaging and desorption electrospray-ionization linear ion-trap mass spectrometry for analysis of counterfeit antimalarial tablets. *Analytical and Bioanalytical Chemistry*, **2007**, 387, 551-9	4.4	87
230	Fourier transform infrared imaging of human hair with a high spatial resolution without the use of a synchrotron. *Applied Spectroscopy*, **2005**, 59, 149-55	3.1	83
229	Simultaneous FTIR spectroscopic imaging and visible photography to monitor tablet dissolution and drug release. *Pharmaceutical Research*, **2008**, 25, 853-60	4.5	79
228	Spectroscopic imaging of arteries and atherosclerotic plaques. *Biopolymers*, **2004**, 74, 328-35	2.2	77
227	Polymorphism and devitrification of nifedipine under controlled humidity: a combined FT-Raman, IR and Raman microscopic investigation. *Journal of Raman Spectroscopy*, **2004**, 35, 353-359	2.3	77

226	Assessment of hand-held Raman instrumentation for in situ screening for potentially counterfeit artesunate antimalarial tablets by FT-Raman spectroscopy and direct ionization mass spectrometry. *Analytica Chimica Acta*, **2008**, 623, 178-86	6.6	76
225	Fourier transform infrared imaging for high-throughput analysis of pharmaceutical formulations. *ACS Combinatorial Science*, **2005**, 7, 185-9		76
224	High-Pressure CO2-Expanded Solvents: Simultaneous Measurement of CO2 Sorption and Swelling of Liquid Polymers with in-Situ Near-IR Spectroscopy. *Journal of Physical Chemistry B*, **2004**, 108, 13995-13999	3.4	74
223	Chemical characterization of latent fingerprints by matrix-assisted laser desorption ionization, time-of-flight secondary ion mass spectrometry, mega electron volt secondary mass spectrometry, gas chromatography/mass spectrometry, X-ray photoelectron spectroscopy, and attenuated total reflection Fourier transform infrared spectroscopic imaging: an intercomparison. *Analytical*	7.8	73
222	Partitioning of solutes and cosolvents between supercritical CO2 and polymer phases. *Journal of Supercritical Fluids*, **1998**, 13, 107-112	4.2	72
221	Combined Application of Imaging Methods for the Characterization of a Polymer Blend. *Applied Spectroscopy*, **2002**, 56, 1515-1523	3.1	70
220	Can Organometallic Noble Gas Compounds Be Observed in Solution at Room Temperature? A Time-Resolved Infrared (TRIR) and UV Spectroscopic Study of the Photochemistry of M(CO)6 (M = Cr, Mo, and W) in Supercritical Noble Gas and CO2 Solution. *Journal of the American Chemical Society*, **1996**, 118, 10525-10532	16.4	69
219	How is hydrogen-bonding influenced by solvent density? The spectroscopic study and modeling of the interaction between a proton donor and acceptor from the gas phase to supercritical fluid states. *Journal of the American Chemical Society*, **1993**, 115, 11099-11109	16.4	67
218	Infrared spectroscopy and spectroscopic imaging in forensic science. *Analyst, The*, **2017**, 142, 257-272	5	63
217	Combining the tape-lift method and Fourier transform infrared spectroscopic imaging for forensic applications. *Applied Spectroscopy*, **2006**, 60, 1013-21	3.1	63
216	Measurement of CO2 sorption and PEG 1500 swelling by ATR-IR spectroscopy. *Journal of Supercritical Fluids*, **2008**, 45, 384-390	4.2	62
215	Supercritical fluid dyeing of PMMA films with azo-dyes. *Journal of Applied Polymer Science*, **1998**, 69, 911-919	2.9	61
214	An innovative design of compaction cell for in situ FT-IR imaging of tablet dissolution. *Vibrational Spectroscopy*, **2004**, 35, 9-13	2.1	61
213	Release of poorly soluble drugs from HPMC tablets studied by FTIR imaging and flow-through dissolution tests. *Journal of Pharmaceutical Sciences*, **2005**, 94, 2096-109	3.9	61
212	Integrated 3-dimensional expansion and osteogenic differentiation of murine embryonic stem cells. *Tissue Engineering*, **2007**, 13, 2957-70		58
211	Study of Solvent Diffusion and Solvent-Induced Crystallization in Syndiotactic Polystyrene Using FT-IR Spectroscopy and Imaging. *Macromolecules*, **2005**, 38, 2327-2332	5.5	58
210	High-pressure CO2-induced reduction of the melting temperature of ionic liquids. *Chemical Communications*, **2002**, 1314-5	5.8	58
209	In situ FTIR measurement of carbon dioxide sorption into poly(ethylene terephthalate) at elevated pressures. *Journal of Applied Polymer Science*, **2000**, 77, 764-775	2.9	58

208	Impregnation of a biocompatible polymer aided by supercritical CO2: Evaluation of drug stability and drug□matrix interactions. *Journal of Supercritical Fluids*, **2009**, 48, 56-63	4.2	57
207	Supercritical fluid impregnation of different azo-dyes into polymer: in situ UV/Vis spectroscopic study. *Journal of Supercritical Fluids*, **2003**, 27, 215-221	4.2	55
206	Applications of vibrational spectroscopy to characterize poly(ethylene terephthalate) processed with supercritical CO2. *Vibrational Spectroscopy*, **1999**, 19, 277-283	2.1	55
205	Aberration-free FTIR spectroscopic imaging of live cells in microfluidic devices. *Analyst, The*, **2013**, 138, 4040-7	5	53
204	FT-IR spectroscopic imaging of reactions in multiphase flow in microfluidic channels. *Analytical Chemistry*, **2012**, 84, 4052-6	7.8	53
203	FTIR spectroscopic imaging of dissolution of a solid dispersion of nifedipine in poly(ethylene glycol). *Molecular Pharmaceutics*, **2004**, 1, 331-5	5.6	53
202	Applications of Fourier transform infrared spectroscopic imaging to tablet dissolution and drug release. *Expert Opinion on Drug Delivery*, **2013**, 10, 1207-21	8	52
201	High-pressure CO2-enhanced polymer interdiffusion and dissolution studied with in situ ATR-FTIR spectroscopic imaging. *Polymer*, **2006**, 47, 4649-4658	3.9	50
200	Enhancing high-throughput technology and microfluidics with FTIR spectroscopic imaging. *Analytical and Bioanalytical Chemistry*, **2007**, 388, 529-32	4.4	49
199	Characterisation of bioactive and resorbable polylactide/Bioglass composites by FTIR spectroscopic imaging. *Biomaterials*, **2004**, 25, 3931-8	15.6	49
198	Revealing the Nature and Distribution of Metal Carboxylates in Jackson Pollock's Alchemy (1947) by Micro-Attenuated Total Reflection FT-IR Spectroscopic Imaging. *Analytical Chemistry*, **2017**, 89, 1283-1289	7.8	48
197	Fouling in Crude Oil Preheat Trains: A Systematic Solution to an Old Problem. *Heat Transfer Engineering*, **2011**, 32, 197-215	1.7	48
196	Spectroscopic imaging of biomaterials and biological systems with FTIR microscopy or with quantum cascade lasers. *Analytical and Bioanalytical Chemistry*, **2017**, 409, 5813-5820	4.4	47
195	Infrared cell for supercritical fluid□polymer interactions. *Review of Scientific Instruments*, **1996**, 67, 1586-1589	1.7	46
194	Stability of indomethacin with relevance to the release from amorphous solid dispersions studied with ATR-FTIR spectroscopic imaging. *European Journal of Pharmaceutical Sciences*, **2014**, 60, 64-71	5.1	45
193	Fabrication of chitosan/poly(□caprolactone) composite hydrogels for tissue engineering applications. *Journal of Materials Science: Materials in Medicine*, **2011**, 22, 279-88	4.5	45
192	Rapid prototyping of microfluidic devices for integrating with FT-IR spectroscopic imaging. *Lab on A Chip*, **2010**, 10, 2170-4	7.2	45
191	Generation of chemical movies: FT-IR spectroscopic imaging of segmented flows. *Analytical Chemistry*, **2011**, 83, 3606-9	7.8	45

190	Blends of cellulose and poly(3-hydroxybutyrate-co-3-hydroxyvalerate) prepared from the ionic liquid 1-butyl-3-methylimidazolium chloride. *Carbohydrate Polymers*, **2011**, 86, 94-104	10.3	45
189	Macro-ATR-FT-IR spectroscopic imaging analysis of paint cross-sections. *Vibrational Spectroscopy*, **2010**, 53, 274-278	2.1	44
188	Identifying the mechanisms of drug release from amorphous solid dispersions using MRI and ATR-FTIR spectroscopic imaging. *International Journal of Pharmaceutics*, **2015**, 483, 256-67	6.5	43
187	In situ ATR-FTIR Spectroscopy of Poly(ethylene terephthalate) Subjected to High-Temperature Methanol. *Macromolecular Symposia*, **2008**, 265, 195-204	0.8	43
186	Characterization of Tuyere-Level Core-Drill Coke Samples from Blast Furnace Operation. *Energy & Fuels*, **2007**, 21, 3446-3454	4.1	43
185	Visualisation of the heterogeneous water sorption in a pharmaceutical formulation under controlled humidity via FT-IR imaging. *Vibrational Spectroscopy*, **2004**, 35, 45-49	2.1	43
184	Bacterial cellulose as source for activated nanosized carbon for electric double layer capacitors. *Journal of Materials Science*, **2013**, 48, 367-376	4.3	42
183	ATR-FTIR imaging of albumen photographic prints. *Journal of Cultural Heritage*, **2007**, 8, 387-395	2.9	42
182	Attenuated total reflection Fourier transform infrared imaging with variable angles of incidence: a three-dimensional profiling of heterogeneous materials. *Applied Spectroscopy*, **2007**, 61, 48-54	3.1	42
181	High-throughput study of poly(ethylene glycol)/ibuprofen formulations under controlled environment using FTIR imaging. *ACS Combinatorial Science*, **2006**, 8, 26-31		41
180	Spectroscopic Imaging of Compacted Pharmaceutical Tablets. *Chemical Engineering Research and Design*, **2005**, 83, 1303-1310	5.5	41
179	Structural transformation of synthetic hydroxyapatite under simulated in vivo conditions studied with ATR-FTIR spectroscopic imaging. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2017**, 171, 155-161	4.4	40
178	Applications of Ionic Liquids for the Development of Optical Chemical Sensors and Biosensors. *Analytical Sciences*, **2017**, 33, 261-274	1.7	40
177	pH-sensitive polymer hydrogels derived from morpholine to prevent the crystallization of ibuprofen. *Journal of Controlled Release*, **2011**, 149, 140-5	11.7	40
176	Mapping local microstructure and mechanical performance around carbon nanotube grafted silica fibres: methodologies for hierarchical composites. *Nanoscale*, **2011**, 3, 4759-67	7.7	40
175	FT-IR Imaging of Solvent-Induced Crystallization in Polymers. *Macromolecules*, **2004**, 37, 6498-6503	5.5	40
174	High-throughput thermal stability analysis of a monoclonal antibody by attenuated total reflection FT-IR spectroscopic imaging. *Analytical Chemistry*, **2014**, 86, 9786-93	7.8	39
173	High-pressure carbon dioxide uptake for porous organic cages: comparison of spectroscopic and manometric measurement techniques. *Chemical Communications*, **2013**, 49, 9410-2	5.8	39

172	Compaction of pharmaceutical tablets with different polymer matrices studied by FTIR imaging and X-ray microtomography. *Journal of Pharmaceutical Sciences*, **2008**, 97, 4269-77	3.9	39
171	A comparison between gravimetric and in situ spectroscopic methods to measure the sorption of CO2 in a biocompatible polymer. *Journal of Supercritical Fluids*, **2005**, 36, 160-165	4.2	39
170	Polymers and supercritical fluids: opportunities for vibrational spectroscopy. *Macromolecular Symposia*, **2002**, 184, 215-228	0.8	39
169	Electrostatically-guided inhibition of Curli amyloid nucleation by the CsgC-like family of chaperones. *Scientific Reports*, **2016**, 6, 24656	4.9	39
168	Recent advances in the applications of vibrational spectroscopic imaging and mapping to pharmaceutical formulations. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2018**, 197, 10-29	4.4	38
167	Application of Fourier transform infrared spectroscopic imaging to the study of effects of age and dietary L-arginine on aortic lesion composition in cholesterol-fed rabbits. *Journal of the Royal Society Interface*, **2009**, 6, 669-80	4.1	38
166	Applications of FTIR Spectroscopy to Supercritical Fluid Drying, Extraction and Impregnation. *Applied Spectroscopy Reviews*, **1997**, 32, 301-348	4.5	38
165	□unable□diffusion of D2O in CO2-swollen poly(methyl methacrylate) films. *AICHE Journal*, **1997**, 43, 1838-1848	3.6	38
164	Validation of macroscopic attenuated total reflection-Fourier transform infrared imaging to study dissolution of swelling pharmaceutical tablets. *Applied Spectroscopy*, **2004**, 58, 1413-9	3.1	38
163	Highly selective separation of carbon dioxide from nitrogen and methane by nitrile/glycol-difunctionalized ionic liquids in supported ionic liquid membranes (SILMs). *Journal of Physical Chemistry B*, **2014**, 118, 7440-9	3.4	37
162	Correcting the effect of refraction and dispersion of light in FT-IR spectroscopic imaging in transmission through thick infrared windows. *Analytical Chemistry*, **2013**, 85, 1029-36	7.8	37
161	Chemical Visualization of Asphaltenes Aggregation Processes Studied in Situ with ATR-FTIR Spectroscopic Imaging and NMR Imaging. *Journal of Physical Chemistry C*, **2015**, 119, 2646-2660	3.8	37
160	Mononuclear Phenolate Diamine Zinc Hydride Complexes and Their Reactions With CO. *Organometallics*, **2014**, 33, 1112-1119	3.8	36
159	Microstructure-based mathematical modelling and spectroscopic imaging of tablet dissolution. *Computers and Chemical Engineering*, **2011**, 35, 1328-1339	4	36
158	In situ high-throughput study of drug polymorphism under controlled temperature and humidity using FT-IR spectroscopic imaging. *Vibrational Spectroscopy*, **2007**, 43, 221-226	2.1	36
157	ATR-FTIR spectroscopic imaging with expanded field of view to study formulations and dissolution. *Lab on A Chip*, **2006**, 6, 864-70	7.2	36
156	Nondestructive three-dimensional analysis of layered polymer structures with chemical imaging. *Langmuir*, **2010**, 26, 19027-32	4	35
155	Supercritical fluid impregnation of polyethylene films, a new approach to studying equilibria in matrices; the hydrogen bonding of fluoroalcohols to (□-C5Me5)Ir(CO)2 and the effect on C?H activation. *Chemical Physics Letters*, **1993**, 206, 175-180	2.5	35

154	ATR-FTIR spectroscopy and spectroscopic imaging for the analysis of biopharmaceuticals. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 241, 118636	4.4	33
153	New insights into the mechanism of interaction between CO2 and polymers from thermodynamic parameters obtained by in situ ATR-FTIR spectroscopy. *Physical Chemistry Chemical Physics*, **2016**, 18, 6465-75	3.6	33
152	Application of a newly developed portable NIR imaging device to monitor the dissolution process of tablets. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 9401-9	4.4	33
151	Application of FTIR spectroscopic imaging to study the effects of modifying the pH microenvironment on the dissolution of ibuprofen from HPMC matrices. *Journal of Pharmaceutical Sciences*, **2011**, 100, 4745-55	3.9	33
150	Study of Petroleum Heat-exchanger Deposits with ATR-FTIR Spectroscopic Imaging. *Energy & Fuels*, **2009**, 23, 4059-4067	4.1	33
149	Collection and detection of latent fingermarks contaminated with cosmetics on nonporous and porous surfaces. *Surface and Interface Analysis*, **2010**, 42, 386-392	1.5	33
148	Cosolvent tuning of tautomeric equilibrium in supercritical fluids. *AICHE Journal*, **1997**, 43, 515-524	3.6	33
147	Spectroscopic Imaging Applied to Drug Release. *Food and Bioproducts Processing*, **2005**, 83, 127-135	4.9	33
146	Confocal Raman study of poly(ethylene terephthalate) fibres dyed in supercritical carbon dioxide: dye diffusion and polymer morphology. *Polymer*, **2005**, 46, 2943-2949	3.9	33
145	The biocompatibility of carbon hydroxyapatite/□glucan composite for bone tissue engineering studied with Raman and FTIR spectroscopic imaging. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 7775-85	4.4	32
144	Fullerene oxidation and clustering in solution induced by light. *Journal of Colloid and Interface Science*, **2015**, 446, 24-30	9.3	32
143	Attenuated total reflection-FT-IR spectroscopic imaging of protein crystallization. *Analytical Chemistry*, **2009**, 81, 3769-75	7.8	32
142	Micro ATR-FTIR spectroscopic imaging of atherosclerosis: an investigation of the contribution of inducible nitric oxide synthase to lesion composition in ApoE-null mice. *Analyst, The*, **2009**, 134, 1107-18	5	32
141	Attenuated total reflection-Fourier transform infrared spectroscopic imaging of pharmaceuticals in microfluidic devices. *Biomicrofluidics*, **2016**, 10, 024125	3.2	32
140	ATR-FTIR spectroscopic imaging to study the drying and dissolution of pharmaceutical polymer-based films. *International Journal of Pharmaceutics*, **2016**, 515, 57-68	6.5	32
139	Near-wall particle depletion in a flowing colloidal suspension. *Journal of Rheology*, **2002**, 46, 481-493	4.1	31
138	Effect of moisture and pressure on tablet compaction studied with FTIR spectroscopic imaging. *Journal of Pharmaceutical Sciences*, **2007**, 96, 351-60	3.9	30
137	Fourier Transform Infrared (FT-IR) Spectroscopic Imaging Analysis of Partially Miscible PMMA-PEG Blends Using Two-Dimensional Disrelation Mapping. *Applied Spectroscopy*, **2017**, 71, 1189-1197	3.1	29

136	Potential of a newly developed high-speed near-infrared (NIR) camera (Compovision) in polymer industrial analyses: monitoring crystallinity and crystal evolution of polylactic acid (PLA) and concentration of PLA in PLA/Poly-(R)-3-hydroxybutyrate (PHB) blends. *Applied Spectroscopy*, **2013**, 67, 1441-6	3.1	29
135	Tip-enhanced Raman mapping with top-illumination AFM. *Nanotechnology*, **2011**, 22, 175701	3.4	29
134	Cosolvent Effects of Modified Supercritical Carbon Dioxide on Cross-Linked Poly(dimethylsiloxane). *Journal of Physical Chemistry B*, **1998**, 102, 2176-2186	3.4	29
133	IR study of hydrogen bonds formed by □complexes of transition metals in liquid xenon solution. *Journal of Molecular Structure*, **1988**, 174, 29-34	3.4	29
132	In Situ Electron Spin Resonance Study of Molecular Dynamics of Asphaltenes at Elevated Temperature and Pressure. *Energy & Fuels*, **2014**, 28, 6315-6321	4.1	28
131	FT-IR imaging and Raman microscopic study of poly(ethylene terephthalate) film processed with supercritical CO2. *Vibrational Spectroscopy*, **2004**, 35, 3-7	2.1	28
130	Rheology of Poly(propylene glycol) and Suspensions of Fumed Silica in Poly(propylene glycol) under High-Pressure CO2. *Industrial & Engineering Chemistry Research*, **2003**, 42, 6310-6319	3.9	28
129	In-column ATR-FTIR spectroscopy to monitor affinity chromatography purification of monoclonal antibodies. *Scientific Reports*, **2016**, 6, 30526	4.9	28
128	Effects of particle size on near-wall depletion in mono-dispersed colloidal suspensions. *Journal of Colloid and Interface Science*, **2004**, 280, 511-7	9.3	27
127	Chemical imaging of protein adsorption and crystallization on a wettability gradient surface. *Langmuir*, **2012**, 28, 3174-9	4	26
126	Solute partitioning between an ionic liquid and high-pressure CO2 studied with in situ FTIR spectroscopy. *Journal of Chemical Thermodynamics*, **2005**, 37, 621-626	2.9	26
125	FTIR spectroscopic imaging and mapping with correcting lenses for studies of biological cells and tissues. *Faraday Discussions*, **2016**, 187, 69-85	3.6	26
124	Electron Spin Resonance of Slowly Rotating Vanadyls□ffective Tool to Quantify the Sizes of Asphaltenes in Situ. *Energy & Fuels*, **2017**, 31, 387-394	4.1	25
123	Ultrafast infrared chemical imaging of live cells. *Chemical Science*, **2011**, 2, 107-111	9.4	25
122	Local examination of skin diffusion using FTIR spectroscopic imaging and multivariate target factor analysis. *Analytica Chimica Acta*, **2009**, 642, 246-56	6.6	25
121	Chemical imaging with variable angles of incidence using a diamond attenuated total reflection accessory. *Applied Spectroscopy*, **2008**, 62, 1102-7	3.1	25
120	In Situ Chemical Imaging of Asphaltene Precipitation from Crude Oil Induced by n-Heptane. *Energy & Fuels*, **2014**, 28, 964-971	4.1	24
119	Recent progress of near-infrared (NIR) imaging--development of novel instruments and their applicability for practical situations--. *Analytical Sciences*, **2014**, 30, 143-50	1.7	24

118	Dissolution of tablet-in-tablet formulations studied with ATR-FTIR spectroscopic imaging. *European Journal of Pharmaceutical Sciences*, **2013**, 48, 748-57	5.1	24
117	Correlation between Asphaltene Stability in n-Heptane and Crude Oil Composition Revealed with In Situ Chemical Imaging. *Adsorption Science and Technology*, **2014**, 32, 243-255	3.6	24
116	Effect of dense gas CO2 on the coacervation of elastin. *Biomacromolecules*, **2008**, 9, 1100-5	6.9	24
115	Analyzing the impact of different excipients on drug release behavior in hot-melt extrusion formulations using FTIR spectroscopic imaging. *European Journal of Pharmaceutical Sciences*, **2015**, 67, 21-31	5.1	23
114	Nonlinear Raman Effects Enhanced by Surface Plasmon Excitation in Planar Refractory Nanoantennas. *Nano Letters*, **2017**, 17, 5533-5539	11.5	23
113	Modelling of pharmaceutical tablet swelling and dissolution using discrete element method. *Chemical Engineering Science*, **2012**, 69, 394-403	4.4	23
112	Spectroscopic Measurement of Solute and Cosolvent Partitioning between Supercritical CO2 and Polymers. *Journal of Physical Chemistry B*, **1999**, 103, 10007-10016	3.4	23
111	Protein hydration in living cells probed by Fourier transform infrared (FT-IR) spectroscopic imaging. *Analyst, The*, **2017**, 142, 2475-2483	5	22
110	A novel method for the production of crystalline micronised particles. *International Journal of Pharmaceutics*, **2010**, 388, 114-22	6.5	22
109	Dye Diffusion in Polymer Films Subjected to Supercritical CO2: Confocal Raman Microscopy and Modelling. *Macromolecular Chemistry and Physics*, **2005**, 206, 1077-1083	2.6	22
108	Comparison of pharmaceutical formulations: ATR-FTIR spectroscopic imaging to study drug-carrier interactions. *International Journal of Pharmaceutics*, **2015**, 495, 112-121	6.5	21
107	Modeling the Effects of Cosolvent-Modified Supercritical Fluids on Polymers with a Lattice Fluid Equation of State. *Industrial & Engineering Chemistry Research*, **1998**, 37, 3305-3311	3.9	21
106	Behavior of Asphaltenes in Crude Oil at High-Pressure CO2 Conditions: In Situ Attenuated Total Reflection Fourier Transform Infrared Spectroscopic Imaging Study. *Energy & Fuels*, **2016**, 30, 4750-4757	4.1	21
105	Evaluating drug delivery with salt formation: Drug disproportionation studied in situ by ATR-FTIR imaging and Raman mapping. *Journal of Pharmaceutical and Biomedical Analysis*, **2015**, 111, 248-56	3.5	20
104	How Do Intermolecular Interactions Affect Swelling of Polyketones with a Differing Number of Carbonyl Groups? An In Situ ATR-FTIR Spectroscopic Study of CO2 Sorption in Polymers. *Journal of Physical Chemistry C*, **2015**, 119, 431-440	3.8	20
103	Supercritical CO2-assisted preparation of ibuprofen-loaded PEG PVP complexes. *Journal of Supercritical Fluids*, **2011**, 57, 190-197	4.2	20
102	Attenuated total reflection-Fourier transform infrared imaging of large areas using inverted prism crystals and combining imaging and mapping. *Applied Spectroscopy*, **2008**, 62, 1095-101	3.1	20
101	Confocal Raman microscopy of morphological changes in poly(ethylene terephthalate) film induced by supercritical CO(2). *Applied Spectroscopy*, **2004**, 58, 390-4	3.1	20

100	Chemical imaging of the stratum corneum under controlled humidity with the attenuated total reflection Fourier transform infrared spectroscopy method. *Journal of Biomedical Optics*, **2007**, 12, 044010	3.5	19
99	Macro FTIR imaging in transmission under a controlled environment. *Vibrational Spectroscopy*, **2006**, 42, 130-134	2.1	19
98	Spectroscopic probes for hydrogen bonding, extraction impregnation and reaction in supercritical fluids. *Analyst, The*, **1993**, 118, 1111	5	19
97	Nanopatterning and tuning of optical taper antenna apex for tip-enhanced Raman scattering performance. *Review of Scientific Instruments*, **2013**, 84, 093106	1.7	18
96	Non-equilibrium behavior of polyethylene glycol (PEG)/polypropylene glycol (PPG) mixture studied by Fourier transform infrared (FTIR) spectroscopy. *Vibrational Spectroscopy*, **2017**, 88, 49-55	2.1	18
95	The Combined Use of Imaging Approaches to Assess Drug Release from Multicomponent Solid Dispersions. *Pharmaceutical Research*, **2017**, 34, 990-1001	4.5	18
94	Micro-Attenuated Total Reflection Fourier Transform Infrared (Micro ATR FT-IR) Spectroscopic Imaging with Variable Angles of Incidence. *Applied Spectroscopy*, **2015**, 69, 1170-4	3.1	18
93	Micro ATR FTIR imaging of hanging drop protein crystallisation. *Vibrational Spectroscopy*, **2012**, 63, 492-498	2.1	18
92	High-throughput spectroscopic imaging applied to permeation through the skin. *Applied Spectroscopy*, **2009**, 63, 512-7	3.1	18
91	ATR-IR spectroscopy of superheated water and in situ study of the hydrothermal decomposition of poly(ethylene terephthalate). *Physical Chemistry Chemical Physics*, **2002**, 4, 3759-3763	3.6	18
90	Simultaneous monitoring of curing shrinkage and degree of cure of thermosets by attenuated total reflection Fourier transform infrared (ATR FT-IR) spectroscopy. *Applied Spectroscopy*, **2013**, 67, 1427-36	3.1	17
89	Finding a needle in a chemical haystack: tip-enhanced Raman scattering for studying carbon nanotubes mixtures. *Nanotechnology*, **2010**, 21, 445704	3.4	17
88	Measurement of drug and macromolecule diffusion across atherosclerotic rabbit aorta ex vivo by attenuated total reflection-Fourier transform infrared imaging. *Journal of Biomedical Optics*, **2009**, 14, 044008	3.5	17
87	In situ FTIR spectroscopic study of the effect of CO2 sorption on H-bonding in PEG-PVP mixtures. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2011**, 78, 1500-6	4.4	17
86	Sampling Approaches in Fourier Transform Infrared Imaging Applied to Polymers1-6		17
85	Three-dimensional depth profiling of prostate tissue by micro ATR-FTIR spectroscopic imaging with variable angles of incidence. *Analyst, The*, **2019**, 144, 2954-2964	5	16
84	Formulation design space analysis for drug release from swelling polymer tablets. *Powder Technology*, **2013**, 236, 179-187	5.2	16
83	In situ permeation study of drug through the stratum corneum using attenuated total reflectance [corrected] Fourier transform infrared spectroscopic imaging. *Journal of Biomedical Optics*, **2009**, 14, 034011	3.5	16

82	Solubility enhancement of trans-chalcone using lipid carriers and supercritical CO2 processing. *Journal of Supercritical Fluids*, **2009**, 48, 120-125	4.2	16
81	Application of attenuated total reflection Fourier transform infrared imaging and tape-stripping to investigate the three-dimensional distribution of exogenous chemicals and the molecular organization in Stratum corneum. *Journal of Biomedical Optics*, **2008**, 13, 064009	3.5	16
80	Current trends and opportunities for the applications of in situ vibrational spectroscopy to investigate the supercritical fluid processing of polymers. *Journal of Supercritical Fluids*, **2018**, 134, 88-95	4.2	16
79	Effect of Temperature and Composition on the Stability of Crude Oil Blends Studied with Chemical Imaging in Situ. *Energy & Fuels*, **2015**, 29, 7114-7123	4.1	15
78	Fourier transform infrared spectroscopic imaging of colon tissues: evaluating the significance of amide I and C-H stretching bands in diagnostic applications with machine learning. *Analytical and Bioanalytical Chemistry*, **2019**, 411, 6969-6981	4.4	15
77	Fast drying and film formation of latex dispersions studied with FTIR spectroscopic imaging. *Langmuir*, **2014**, 30, 13588-95	4	15
76	Cleaning-in-place of immunoaffinity resins monitored by in situ ATR-FTIR spectroscopy. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 7111-22	4.4	14
75	Near-field Raman dichroism of azo-polymers exposed to nanoscale dc electrical and optical poling. *Nanoscale*, **2016**, 8, 19867-19875	7.7	14
74	Study of the Degradation and Conservation of Historical Leather Book Covers with Macro Attenuated Total Reflection-Fourier Transform Infrared Spectroscopic Imaging. *ACS Omega*, **2018**, 3, 7150-7157	3.9	14
73	A novel approach for study of in situ diffusion in human hair using Fourier transform infrared spectroscopic imaging. *Applied Spectroscopy*, **2008**, 62, 1041-4	3.1	14
72	Can Conformational Equilibria Be "Tuned" in Supercritical Fluid Solution? An IR Spectroscopic Study of Trans/Gauche Isomerism of Hexafluoropropan-2-ol in Supercritical SF6 and CHF3 Solutions. *The Journal of Physical Chemistry*, **1995**, 99, 8624-8628		14
71	Development of a High-Speed Monitoring near Infrared Hyperspectral Camera (Compovision) for Wide Area Imaging and its Applications. *NIR News*, **2013**, 24, 6-11	0.8	13
70	ATR-FTIR spectroscopy and spectroscopic imaging of solvent and permeant diffusion across model membranes. *European Journal of Pharmaceutics and Biopharmaceutics*, **2010**, 74, 413-9	5.7	13
69	Analyses of trace amounts of dyes with a new enhanced sensitivity FTIR spectroscopic technique: MU-ATR (metal underlayer ATR spectroscopy). *Analytica Chimica Acta*, **2016**, 941, 67-79	6.6	13
68	Spectroscopic imaging of deposition of asphaltenes from crude oil under flow. *Journal of Petroleum Science and Engineering*, **2019**, 181, 106205	4.4	12
67	Superresolution stimulated Raman scattering microscopy using 2-ENZ nano-composites. *Nanoscale*, **2019**, 11, 7710-7719	7.7	12
66	High-speed monitoring of the crystallinity change in poly(lactic acid) during photodegradation by using a newly developed wide area NIR imaging system (Compovision). *Analytical and Bioanalytical Chemistry*, **2015**, 407, 397-403	4.4	12
65	Experimental Evidence for Axial Anisotropy beyond the Diffraction Limit Induced with a Bias Voltage Plasmonic Nanoantenna and Longitudinal Optical Near-Fields in Photoreactive Polymer Thin Films. *ACS Photonics*, **2014**, 1, 1025-1032	6.3	12

64	Polarization of near-field light induced with a plasmonic nanoantenna. *Physical Review B*, **2015**, 92,	3.3	12
63	Application of principal component analysis to the thermal characterization of silanized nanoparticles obtained at supercritical carbon dioxide conditions. *Analytica Chimica Acta*, **2009**, 635, 227-34	6.6	12
62	Transmission Fourier Transform Infrared Spectroscopic Imaging, Mapping, and Synchrotron Scanning Microscopy with Zinc Sulfide Hemispheres on Living Mammalian Cells at Sub-Cellular Resolution. *Applied Spectroscopy*, **2020**, 74, 544-552	3.1	11
61	Molecular-level insight into hot-melt loading and drug release from mesoporous silica carriers. *European Journal of Pharmaceutics and Biopharmaceutics*, **2018**, 130, 327-335	5.7	11
60	Spectroscopic analysis of triflusal impregnated into PMMA from supercritical CO2 solution. *Vibrational Spectroscopy*, **2009**, 49, 183-189	2.1	11
59	Confocal Raman microscopy of supercritical fluid dyeing of polymers. *Analyst, The*, **2003**, 128, 499-503	5	11
58	Indentation of poly(methyl methacrylate) under high-pressure gases. *Journal of Polymer Science, Part B: Polymer Physics*, **2001**, 39, 3020-3028	2.6	11
57	Schwingungsspektroskopie in überkritischen fluiden Phasen: von der Analytik bis zur Synthesechemie. *Angewandte Chemie*, **1995**, 107, 1409-1432	3.6	11
56	Intermolecular hydrogen bonding to transition metal centres; infrared spectroscopic evidence for OH ? Ir bonding between [(η-C5Me5)Ir(CO)2] and fluoroalcohols in solution at room temperature. *Journal of the Chemical Society Chemical Communications*, **1992**, 994-997		11
55	Simultaneous Visualization of Phase Separation and Crystallization in PHB/PLLA Blends with In Situ ATR-FTIR Spectroscopic Imaging. *Macromolecules*, **2020**, 53, 9074-9085	5.5	11
54	Evaluation of novel applications of cellulose hydrogel films reconstituted from acetate and chloride of 1-butyl-3-methylimidazolium by comparing their optical, mechanical, and adsorption properties. *Materials Today Communications*, **2016**, 8, 108-117	2.5	10
53	Organic and inorganic content of fluorotic rat incisors measured by FTIR spectroscopy. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2010**, 77, 59-63	4.4	10
52	Perspectives on infrared spectroscopic imaging from cancer diagnostics to process analysis. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 251, 119413	4.4	10
51	DEM simulation of drug release from structurally heterogeneous swelling tablets. *Powder Technology*, **2013**, 248, 68-76	5.2	9
50	Preparation of Nanostructured Organic–Inorganic Hybrid Materials Using Supercritical Fluid Technology. *Composite Interfaces*, **2009**, 16, 143-155	2.3	9
49	Multivariate Movies and their Applications in Pharmaceutical and Polymer Dissolution Studies221-260		9
48	Polymer Processing with Supercritical Fluids **2006**, 205-238		9
47	Micro ATR-FTIR spectroscopic imaging of colon biopsies with a large area Ge crystal. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 228, 117695	4.4	9

46	Collagen maturity and mineralization in mesenchymal stem cells cultured on the hydroxyapatite-based bone scaffold analyzed by ATR-FTIR spectroscopic imaging. *Materials Science and Engineering C*, **2021**, 119, 111634	8.3	9
45	Insight into the effects of moisture and layer build-up on the formation of lead soaps using micro-ATR-FTIR spectroscopic imaging of complex painted stratigraphies. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 455-467	4.4	8
44	Effect of Controlled Humidity and Tissue Hydration on Colon Cancer Diagnostic via FTIR Spectroscopic Imaging. *Analytical Chemistry*, **2020**, 92, 9691-9698	7.8	7
43	Insight into Heterogeneous Distribution of Protein Aggregates at the Surface Layer Using Attenuated Total Reflection-Fourier Transform Infrared Spectroscopic Imaging. *Analytical Chemistry*, **2020**, 92, 4760-4764	7.8	7
42	Interactions of CO2 with the homologous series of BMIMBF4 ionic liquids studied in situ ATR-FTIR spectroscopy: spectral characteristics, thermodynamic parameters and their correlation. *Journal of Molecular Liquids*, **2020**, 315, 113694	6	7
41	Pluronic L121, BMIM BF4 and PEG-400 comparison to identify the best solvent for CO2 sorption. *Journal of Molecular Liquids*, **2018**, 258, 85-88	6	7
40	An attenuated total reflection Fourier transform infrared (ATR FT-IR) spectroscopic study of gas adsorption on colloidal stearate-capped ZnO catalyst substrate. *Applied Spectroscopy*, **2014**, 68, 88-94	3.1	7
39	How does high-pressure CO affect the morphology of PCL/PLA blends? Visualization of phase separation using in situ ATR-FTIR spectroscopic imaging. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 243, 118760	4.4	7
38	Analysis of molecular orientation in polymeric spherulite using polarized micro attenuated total reflection Fourier transform infrared (ATR-FTIR) spectroscopic imaging. *Analytica Chimica Acta*, **2019**, 1065, 79-89	6.6	7
37	Clinical Spectroscopy: general discussion. *Faraday Discussions*, **2016**, 187, 429-60	3.6	6
36	Combined study of biphasic and zero-order release formulations with dissolution tests and ATR-FTIR spectroscopic imaging. *Journal of Pharmaceutical Sciences*, **2014**, 103, 1995-2004	3.9	6
35	Water vapour-induced mesoporous structure collapse observed by VGI and FT-IR spectroscopy. *Vibrational Spectroscopy*, **2004**, 35, 225-231	2.1	6
34	In Situ IR Spectroscopic Study of the CO2-Induced Swelling of Ionic Liquid Media. *ACS Symposium Series*, **2005**, 89-101	0.4	6
33	Intermolecular Interactions in the Polymer Blends Under High-Pressure CO Studied Using Two-Dimensional Correlation Analysis and Two-Dimensional Disrelation Mapping. *Applied Spectroscopy*, **2021**, 75, 250-258	3.1	6
32	Near-field depolarization of tip-enhanced Raman scattering by single azo-chromophores. *Physical Chemistry Chemical Physics*, **2018**, 20, 24088-24098	3.6	6
31	FT-IR Imaging in ATR and Transmission Modes: Practical Considerations and Emerging Applications **2014**, 397-444		5
30	A fast algorithm for mass transfer on an unstructured grid formed by DEM particles. *Powder Technology*, **2011**, 214, 415-422	5.2	5
29	ATR-FT-IR Imaging for Pharmaceutical and Polymeric Materials: From Micro to Macro Approaches347-375		5

28	FT-IR study of surface species derived from ([C5H5)Ru(CO)2]2 on oxide supports. *Inorganica Chimica Acta*, **1991**, 179, 255-265	2.7	5
27	Fluorescence-based Artemisinin Sensing Using a Pyronin B-doped Cellulose Film Reconstituted from Ionic Liquid. *Analytical Letters*, **2018**, 51, 870-891	2.2	4
26	Thermal effect on dispersive infrared spectroscopic imaging of prostate cancer tissue. *Journal of Biophotonics*, **2018**, 11, e201800187	3.1	4
25	Assessing dysplasia of a bronchial biopsy with FTIR spectroscopic imaging **2015**,		4
24	Supercritical Fluid Impregnation of Polymers for Drug Delivery. *Drugs and the Pharmaceutical Sciences*, **2004**,		4
23	In situ ATR-FTIR spectroscopic imaging of PVC, plasticizer and water in solvent-polymeric ion-selective membrane containing Cd2+-selective neutral ionophore. *Journal of Membrane Science*, **2021**, 619, 118798	9.6	4
22	Dissolution of Solid Dispersions of Ibuprofen Studied by Fourier Transform Infrared Imaging. *ACS Symposium Series*, **2006**, 203-214	0.4	3
21	In-situ spectroscopy of polymers processed with supercritical carbon dioxide **1999**,		3
20	Disordered Nonlinear Metalens for Raman Spectral Nanoimaging. *ACS Applied Materials & Interfaces*, **2020**, 12, 3862-3872	9.5	3
19	Analysis of spatial orientation distribution of highly oriented polyimide film using micro ATR-FTIR spectroscopic imaging method. *Polymer*, **2021**, 221, 123616	3.9	3
18	Fourier Transform Infrared Polarization Contrast Imaging Recognizes Proteins Degradation in Lungs upon Metastasis from Breast Cancer. *Cancers*, **2021**, 13,	6.6	3
17	New Insight into Titanium-Magnesium Ziegler-Natta Catalysts Using Photoluminescence Spectroscopy. *Applied Spectroscopy*, **2020**, 74, 1209-1218	3.1	2
16	ATR-FTIR spectroscopy and spectroscopic imaging of proteins **2020**, 1-22		2
15	Charge-transfer interactions between sulfur dioxide and group 8 half-sandwich complexes. *Journal of the Chemical Society Dalton Transactions*, **1994**, 3515		2
14	Nanoscale Sensing Vitrification of 3D Confined Glassy Polymers Through Refractory Thermoplasmonics. *ACS Photonics*, **2021**, 8, 1477-1488	6.3	2
13	ATR-FTIR spectroscopy and spectroscopic imaging to investigate the behaviour of proteins subjected to freeze-thaw cycles in droplets, wells, and under flow. *Analyst, The*, **2021**, 146, 2902-2909	5	2
12	Insight into purification of monoclonal antibodies in industrial columns studies of Protein A binding capacity by ATR-FTIR spectroscopy. *Analyst, The*, **2021**, 146, 5177-5185	5	2
11	High throughput study of ionic liquids in controlled environments with FTIR spectroscopic imaging. *Journal of Molecular Liquids*, **2021**, 337, 116412	6	2

10	Tip-enhanced Raman Spectroscopy **2014**, 1-30		1
9	Applications of FTIR Spectroscopic Imaging in Pharmaceutical Science **2011**, 185-204		1
8	Time-Resolved ATR-FTIR Spectroscopy and Macro ATR-FTIR Spectroscopic Imaging of Inorganic Treatments for Stone Conservation. *Analytical Chemistry*, **2021**, 93, 14635-14642	7.8	1
7	Visualization of Inter- and Intramolecular Interactions in Poly(3-hydroxybutyrate)/Poly(L-lactic acid) (PHB/PLLA) Blends During Isothermal Melt Crystallization Using Attenuated Total Reflection Fourier Transform infrared (ATR FT-IR) Spectroscopic Imaging. *Applied Spectroscopy*, **2021**, 75, 980-987	3.1	1
6	New DRIFT spectroscopic methodology for acquiring infrared spectra of fiberglass materials. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2021**, 260, 119995	4.4	1
5	Microspectroscopy in the Mid-Infrared **2014**, 1-26		0
4	FTIR Spectroscopy and Spectroscopic Imaging for the Analysis of Polymers and Multicomponent Polymer Systems **2021**, 45-74		0
3	FTIR Imaging of Polymeric Materials **2016**, 118-130		
2	Tip-Enhanced Raman Spectroscopy **2019**, 1-33		
1	Effect of Tm of blend components on the isothermal melt-crystallization process of PHB/PLLA blends investigated using spectroscopic imaging and DSC. *Polymer*, **2022**, 124820	3.9	