## Peter S Belton

List of Publications by Year in descending order

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DETED S RELTON

#	Article	IF	CITATIONS
1	The structure and properties of gluten: an elastic protein from wheat grain. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 133-142.	4.0	464
2	Structure–activity relationship analysis of antioxidant ability and neuroprotective effect of gallic acid derivatives. Neurochemistry International, 2006, 48, 263-274.	3.8	390
3	Changes in Protein Secondary Structure during Gluten Deformation Studied by Dynamic Fourier Transform Infrared Spectroscopy. Biomacromolecules, 2005, 6, 255-261.	5.4	251
4	The high molecular weight subunits of wheat glutenin and their role in determining wheat processing properties. Advances in Food and Nutrition Research, 2003, 45, 219-302.	3.0	213
5	An investigation into the use of polymer blends to improve the printability of and regulate drug release from pharmaceutical solid dispersions prepared via fused deposition modeling (FDM) 3D printing. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 108, 111-125.	4.3	208
6	Fourier Transform Infrared Microspectroscopy Is a New Way to Look at Plant Cell Walls. Plant Physiology, 1992, 100, 1940-1947.	4.8	205
7	Effects of Temperature and Water Content on the Secondary Structure of Wheat Gluten Studied by FTIR Spectroscopy. Biomacromolecules, 2006, 7, 469-475.	5.4	202
8	Wheat glutenin subunits and dough elasticity: findings of the EUROWHEAT project. Trends in Food Science and Technology, 2000, 11, 433-441.	15.1	201
9	Application of chemometrics to the 1H NMR spectra of apple juices: discrimination between apple varieties. Food Chemistry, 1998, 61, 207-213.	8.2	162
10	Sorghum and millets: protein sources for Africa. Trends in Food Science and Technology, 2004, 15, 94-98.	15.1	146
11	High-Resolution Nuclear Magnetic Resonance Spectroscopy and Multivariate Analysis for the Characterization of Beer. Journal of Agricultural and Food Chemistry, 2002, 50, 2475-2481.	5.2	144
12	Fourier transform IR spectroscopic study of hydration-induced structure changes in the solid state of ω-gliadins. Biochemical Journal, 1996, 319, 741-747.	3.7	141
13	Characterisation of solid dispersions of paracetamol and EUDRAGIT® E prepared by hot-melt extrusion using thermal, microthermal and spectroscopic analysis. International Journal of Pharmaceutics, 2008, 354, 158-167.	5.2	131
14	Increasing the utilisation of sorghum, millets and pseudocereals: Developments in the science of their phenolic phytochemicals, biofortification and protein functionality. Journal of Cereal Science, 2014, 59, 257-275.	3.7	125
15	A Fourier transform infrared study of water—head group interactions in reversed micelles containing sodium bis(2-ethylhexyl) sulfosuccinate (AOT). Journal of Colloid and Interface Science, 1992, 152, 465-472.	9.4	120
16	Development of a Simple Mechanical Screening Method for Predicting the Feedability of a Pharmaceutical FDM 3D Printing Filament. Pharmaceutical Research, 2018, 35, 151.	3.5	111
17	Experimental sulphur-33 nuclear magnetic resonance spectroscopy. Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 63.	1.1	101
18	Plasticization of a Protein-Based Film by Glycerol:Â A Spectroscopic, Mechanical, and Thermal Study. Journal of Agricultural and Food Chemistry, 2006, 54, 4611-4616.	5.2	95

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19	A 13C-n.m.r. study of sugar-beet pectin. Carbohydrate Research, 1985, 138, 168-170.	2.3	94
20	Solid-state 13C-N.M.R. and electron microscopy study on the reversible cellulose I→cellulose IIII transformation in Valonia. Carbohydrate Research, 1987, 160, 1-11.	2.3	86
21	Electrospun Polymer Blend Nanofibers for Tunable Drug Delivery: The Role of Transformative Phase Separation on Controlling the Release Rate. Molecular Pharmaceutics, 2016, 13, 25-39.	4.6	84
22	A fourier-transform infrared study of the gelation and retrogradation of waxy-maize starch. Carbohydrate Research, 1987, 166, 162-165.	2.3	80
23	Expression and characterisation of a highly repetitive peptide derived from a wheat seed storage protein. BBA - Proteins and Proteomics, 2000, 1479, 135-146.	2.1	79
24	Kafirin Microparticle Encapsulation of Catechin and Sorghum Condensed Tannins. Journal of Agricultural and Food Chemistry, 2009, 57, 7523-7528.	5.2	79
25	Plasticization of Zein: A Thermomechanical, FTIR, and Dielectric Study. Biomacromolecules, 2009, 10, 1135-1139.	5.4	76
26	A Fourier-transform infrared study of wheat starch gels. Carbohydrate Research, 1988, 180, 339-344.	2.3	75
27	Characterisation and Prediction of Phase Separation in Hot-Melt Extruded Solid Dispersions: A Thermal, Microscopic and NMR Relaxometry Study. Pharmaceutical Research, 2010, 27, 1869-1883.	3.5	74
28	Use of High-Field1H NMR Spectroscopy for the Analysis of Liquid Foods. Journal of Agricultural and Food Chemistry, 1996, 44, 1483-1487.	5.2	69
29	Effect of Preparation Conditions on Protein Secondary Structure and Biofilm Formation of Kafirin. Journal of Agricultural and Food Chemistry, 2005, 53, 306-312.	5.2	69
30	Impact of Processing Parameters on the Quality of Pharmaceutical Solid Dosage Forms Produced by Fused Deposition Modeling (FDM). Pharmaceutics, 2019, 11, 633.	4.5	63
31	Hydration of Gluten:Â A Dielectric, Calorimetric, and Fourier Transform Infrared Study. Biomacromolecules, 2007, 8, 1601-1606.	5.4	59
32	Thermally induced structural changes in glycinin, the 11S globulin of soya bean (Glycine max)—an in situ spectroscopic study. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2003, 1648, 105-114.	2.3	58
33	Controlled Release from Zein Matrices: Interplay of Drug Hydrophobicity and pH. Pharmaceutical Research, 2016, 33, 673-685.	3.5	58
34	Effect of Selected Hofmeister Anions on the Secondary Structure and Dynamics of Wheat Prolamins in Gluten. Cereal Chemistry, 2003, 80, 596-600.	2.2	57
35	13C MAS NMR Studies of the Effects of Hydration on the Cell Walls of Potatoes and Chinese Water Chestnuts. Journal of Agricultural and Food Chemistry, 1999, 47, 510-517.	5.2	56
36	Solid-state phosphorus-31 NMR studies of synthetic inorganic calcium phosphates. Journal of Physics and Chemistry of Solids, 1988, 49, 21-27.	4.0	55

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37	An investigation into the crystallisation behaviour of an amorphous cryomilled pharmaceutical material above and below the glass transition temperature. Journal of Pharmaceutical Sciences, 2010, 99, 196-208.	3.3	54
38	Characterization of the Emulsification Properties of 2S Albumins from Sunflower Seed. Journal of Colloid and Interface Science, 2002, 247, 177-185.	9.4	52
39	Compositional Analysis of Low Quantities of Phase Separation in Hot-Melt-Extruded Solid Dispersions: A Combined Atomic Force Microscopy, Photothermal Fourier-Transform Infrared Microspectroscopy, and Localised Thermal Analysis Approach. Pharmaceutical Research, 2011, 28, 2311-2326.	3.5	51
40	A study on maize proteins as a potential new tablet excipient. European Journal of Pharmaceutics and Biopharmaceutics, 2008, 69, 718-726.	4.3	50
41	The <sup>31</sup> P nuclear magnetic resonance spectrum of cows' milk. Journal of Dairy Research, 1985, 52, 47-54.	1.4	47
42	13C CPMAS studies of plant cell wall materials and model systems using proton relaxation-induced spectral editing techniques. Solid State Nuclear Magnetic Resonance, 2000, 15, 239-248.	2.3	47
43	Physicochemical Studies of Caroubin:Â A Gluten-like Protein. Journal of Agricultural and Food Chemistry, 2001, 49, 3414-3419.	5.2	46
44	Green Tea Polyphenols React with 1,1-Diphenyl-2-picrylhydrazyl Free Radicals in the Bilayer of Liposomes:Â Direct Evidence from Electron Spin Resonance Studies. Journal of Agricultural and Food Chemistry, 2000, 48, 5710-5714.	5.2	44
45	Development of fully amorphous dispersions of a low Tg drug via co-spray drying with hydrophilic polymers. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 82, 572-579.	4.3	38
46	Use of Fourier transform infrared spectroscopy for quantitative analysis: a comparative study of different detection methods. Analyst, The, 1987, 112, 1117.	3.5	37
47	Effects of group I cations on the gelation of iota carrageenan. International Journal of Biological Macromolecules, 1984, 6, 303-308.	7.5	35
48	Formation of kafirin microparticles by phase separation from an organic acid and their characterisation. Journal of Cereal Science, 2009, 50, 99-105.	3.7	35
49	Spectroscopic Approaches to the Understanding of Water in Foods. Food Reviews International, 2011, 27, 170-191.	8.4	35
50	Zeinâ^'Iodine Complex Studied by FTIR Spectroscopy and Dielectric and Dynamic Rheometry in Films and Precipitates. Journal of Agricultural and Food Chemistry, 2009, 57, 4334-4341.	5.2	31
51	A New Low Melting-Point Polymorph of Fenofibrate Prepared via Talc Induced Heterogeneous Nucleation. Crystal Growth and Design, 2015, 15, 5011-5020.	3.0	30
52	Creating Drug Solubilization Compartments via Phase Separation in Multicomponent Buccal Patches Prepared by Direct Hot Melt Extrusion–Injection Molding. Molecular Pharmaceutics, 2015, 12, 4349-4362.	4.6	30
53	31P N.m.r. studies of the hydrolysis of added phosphates in chicken meat. Journal of the Science of Food and Agriculture, 1987, 40, 283-291.	3.5	28
54	Study of the physical properties of kafirin during the fabrication of tablets for pharmaceutical applications. Journal of Cereal Science, 2009, 50, 159-165.	3.7	28

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55	Physical properties of zein films containing salicylic acid and acetyl salicylic acid. Journal of Cereal Science, 2010, 52, 282-287.	3.7	27
56	N.m.r. spectra (1H, 13C) of glucosinolates. Carbohydrate Research, 1984, 132, 323-329.	2.3	26
57	Crystal and molecular structure of potassium β-d-glucopyranose 6-sulphate. Carbohydrate Research, 1988, 180, 183-193.	2.3	25
58	33S and14N nuclear magnetic resonance spectra of some sulphur-nitrogen compounds. Magnetic Resonance in Chemistry, 1986, 24, 1080-1082.	1.9	23
59	Effect of Variety and Environmental Factors on Gluten Proteins: An Analytical, Spectroscopic, and Rheological Study. Journal of Agricultural and Food Chemistry, 2008, 56, 1172-1179.	5.2	23
60	The trehalose coating effect on the internal protein dynamics. Physical Chemistry Chemical Physics, 2012, 14, 2727.	2.8	23
61	Determination of the moisture content of starch using near infrared photoacoustic spectroscopy. Analyst, The, 1983, 108, 591.	3.5	22
62	Effects of particle size on quantitative photoacoustic spectroscopy using a gas-microphone cell. Analytical Chemistry, 1987, 59, 2378-2382.	6.5	22
63	Quantitative proton magnetic resonance of plasma from uraemic patients during dialysis. Magnetic Resonance in Chemistry, 1987, 25, 811-816.	1.9	22
64	The effects of iodine on kidney bean starch: Films and pasting properties. International Journal of Biological Macromolecules, 2009, 45, 116-119.	7.5	21
65	Effects of porosity on drug release kinetics of swellable and erodible porous pharmaceutical solid dosage forms fabricated by hot melt droplet deposition 3D printing. International Journal of Pharmaceutics, 2021, 604, 120626.	5.2	21
66	The use of dynamic vapour sorption methods for the characterisation of water uptake in amorphous trehalose. Carbohydrate Research, 2010, 345, 1938-1944.	2.3	20
67	Characterization of Heterogeneity and Spatial Distribution of Phases in Complex Solid Dispersions by Thermal Analysis by Structural Characterization and X-ray Micro Computed Tomography. Pharmaceutical Research, 2017, 34, 971-989.	3.5	20
68	Probing the molecular interactions between pharmaceutical polymeric carriers and bile salts in simulated gastrointestinal fluids using NMR spectroscopy. Journal of Colloid and Interface Science, 2019, 551, 147-154.	9.4	20
69	Specific ion effects in $\hat{l}^1$ -carrageente gels. Journal of the Chemical Society Chemical Communications, 1980, .	2.0	19
70	The Development of Direct Extrusion-Injection Moulded Zein Matrices as Novel Oral Controlled Drug Delivery Systems. Pharmaceutical Research, 2015, 32, 2775-86.	3.5	19
71	Preparation and Characterization of Ultrarapidly Dissolving Orodispersible Films for Treating and Preventing Iodine Deficiency in the Pediatric Population. Journal of Agricultural and Food Chemistry, 2015, 63, 9831-9838.	5.2	19
72	<sup>31</sup> P nuclear magnetic resonance spectra of milk from various species. Journal of Dairy Research, 1991, 58, 443-451.	1.4	18

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73	Solid state NMR and X-ray diffraction studies of α-d-galacturonic acid monohydrate. Carbohydrate Research, 2001, 330, 391-399.	2.3	18
74	Thermal Analysis by Structural Characterization as a Method for Assessing Heterogeneity in Complex Solid Pharmaceutical Dosage Forms. Analytical Chemistry, 2015, 87, 10848-10855.	6.5	18
75	A new water-soluble and lipid-insoluble spin probe: application to the study of aqueous sucrose solutions. Magnetic Resonance in Chemistry, 1999, 37, 36-42.	1.9	17
76	Thermal Probe Based Analytical Microscopy: Thermal Analysis and Photothermal Fourier-Transform Infrared Microspectroscopy Together with Thermally Assisted Nanosampling Coupled with Capillary Electrophoresis. Analytical Chemistry, 2009, 81, 6612-6619.	6.5	17
77	Preparation of Free-Standing Films from Kafirin Protein Microparticles: Mechanism of Formation and Functional Properties. Journal of Agricultural and Food Chemistry, 2009, 57, 6729-6735.	5.2	17
78	Evaluation of the Benefits of Microfluidic-Assisted Preparation of Polymeric Nanoparticles for DNA Delivery. Materials Science and Engineering C, 2021, 127, 112243.	7.3	17
79	An investigation into the effects of geometric scaling and pore structure on drug dose and release of 3D printed solid dosage forms. European Journal of Pharmaceutics and Biopharmaceutics, 2022, 177, 113-125.	4.3	17
80	13C solution state and solid state n.m.r. of wheat gluten. International Journal of Biological Macromolecules, 1987, 9, 357-362.	7.5	16
81	The potential of Fourier transform infrared spectroscopy for the analysis of confectionery products. Food Chemistry, 1988, 28, 53-61.	8.2	16
82	Comparison of Repetitive Sequences Derived from High Molecular Weight Subunits of Wheat Glutenin, an Elastomeric Plant Protein. Biomacromolecules, 2006, 7, 1096-1103.	5.4	16
83	Identification of the Wheat Seed Protein CM3 as a Highly Active Emulsifier Using a Novel Functional Screen. Journal of Agricultural and Food Chemistry, 2003, 51, 2019-2025.	5.2	15
84	NMR studies of hydration in low water content biopolymer systems. Magnetic Resonance in Chemistry, 2011, 49, S127-32.	1.9	15
85	A new definition of the information content of N.M.R. spectra suitable for use in maximum entropy signal processing. Molecular Physics, 1986, 58, 485-495.	1.7	14
86	35Cl nuclear magnetic resonance studies of the interaction of chloride ions with meat in the presence of tripolyphosphate. Journal of the Science of Food and Agriculture, 1987, 41, 267-275.	3.5	14
87	An investigation into the use of low quantities of functional additives to control drug release from hot melt extruded solid dispersions for poorly soluble drug delivery. International Journal of Pharmaceutics, 2020, 579, 119172.	5.2	14
88	A 13C cross-polarisation magic-angle-spinning nuclear magnetic resonance study of some well characterised crown ethers and their complexes. Journal of the Chemical Society Perkin Transactions II, 1985, , 1307.	0.9	13
89	The reactions of sulphur–nitrogen species in liquid ammonia. Journal of the Chemical Society Chemical Communications, 1988, , 1479-1480.	2.0	13
90	CONTRA: Improving the performance of dynamic investigations in natural abundance organic solids by mirror-symmetric constant-time CODEX. Journal of Magnetic Resonance, 2008, 191, 141-147.	2.1	13

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91	An investigation into the formations of the internal microstructures of solid dispersions prepared by hot melt extrusion. European Journal of Pharmaceutics and Biopharmaceutics, 2020, 155, 147-161.	4.3	13
92	Nitrogen-14 nuclear magnetic resonance studies on sulphur–nitrogen compounds. Journal of the Chemical Society Dalton Transactions, 1990, , 511-517.	1.1	12
93	Solid state 1H NMR studies of cell wall materials of potatoes. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1999, 55, 883-894.	3.9	12
94	Chance, risk, uncertainty and food. Trends in Food Science and Technology, 2001, 12, 32-35.	15.1	12
95	Novel Thermal Imaging Method for Rapid Screening of Drug–Polymer Miscibility for Solid Dispersion Based Formulation Development. Molecular Pharmaceutics, 2018, 15, 5625-5636.	4.6	12
96	An 17O nuclear magnetic resonance relaxation-time study of sucrose–water interactions. Journal of the Chemical Society Faraday Transactions I, 1986, 82, 451.	1.0	11
97	Medium effects on33S NMR of inorganic sulphate. Magnetic Resonance in Chemistry, 1986, 24, 171-174.	1.9	11
98	Anomalous proton NMR relaxation behavior of cell wall materials from Chinese water chestnuts. Magnetic Resonance in Chemistry, 2000, 38, 765-770.	1.9	11
99	Development of Photothermal FTIR Microspectroscopy as a Novel Means of Spatially Identifying Amorphous and Crystalline Salbutamol Sulfate on Composite Surfaces. Molecular Pharmaceutics, 2013, 10, 1815-1823.	4.6	11
100	Sulphur-33 and oxygen-17 NMR studies of sulpholane in acetic acid and related solvents. Magnetic Resonance in Chemistry, 1990, 28, 318-323.	1.9	10
101	Preparation and characterisation of [PPh4][fac-PtX3(S4N4)](X = Cl, Br or I). Journal of the Chemical Society Dalton Transactions, 1992, , 1135.	1.1	10
102	Drop-on-demand printing of personalised orodispersible films fabricated by precision micro-dispensing. International Journal of Pharmaceutics, 2021, 610, 121279.	5.2	10
103	A 31P and 23Na NMR and terbium(III) luminescence study of bistriphosphato-lanthanide(III) complexes including the cation shift reagent [Dy(PPP)2]7â^'. Inorganica Chimica Acta, 1987, 138, 241-247.	2.4	9
104	Compositional Analysis of Metal Chelating Materials Using Near-Field Photothermal Fourier Transform Infrared Microspectroscopy. Analytical Chemistry, 2010, 82, 91-97.	6.5	9
105	An investigation into water interactions with amorphous and milled salbutamol sulphate: The development of predictive models for uptake and recrystallization. International Journal of Pharmaceutics, 2012, 422, 220-228.	5.2	9
106	Line narrowing in phosphorus-31 spectra of solids using a combination of high-power decoupling, cross-polarization, magic-angle spinning, and 31P multiple-pulse operation. Journal of Magnetic Resonance, 1987, 73, 178-183.	0.5	8
107	Potential of Fourier transform infrared spectroscopy and fiber optics for process control. Journal of Agricultural and Food Chemistry, 1992, 40, 435-438.	5.2	8
108	Factors affecting the line widths and signal-to-noise ratios of the13C CP/MAS spectra of proteins. Magnetic Resonance in Chemistry, 1993, 31, 1001-1007.	1.9	8

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109	Solid state NMR, IR and X-ray diffraction studies of the structure and motion of L-leucinamide. Journal of the Chemical Society Perkin Transactions II, 1997, , 899-904.	0.9	8
110	NMR oxygen-17 studies of the state of water in a saturated sucrose solution. Journal of Molecular Liquids, 1998, 75, 45-59.	4.9	8
111	Gluten, the Elastomeric Protein of Wheat Seeds. , 2003, , 279-301.		8
112	Letter to the Editor   Journal of Cereal Science - Volume 46, Issue 1. Journal of Cereal Science, 2007, 46, 97-98.	3.7	8
113	Physicochemical Behaviour of Starch in Food Applications. , 0, , 20-67.		7
114	The use of polymer blends to improve stability and performance of electrospun solid dispersions: The role of miscibility and phase separation. International Journal of Pharmaceutics, 2021, 602, 120637.	5.2	7
115	Direct Granule Feeding of Thermal Droplet Deposition 3D Printing of Porous Pharmaceutical Solid Dosage Forms Free of Plasticisers. Pharmaceutical Research, 2022, 39, 599-610.	3.5	7
116	The Effects of Solid Particle Containing Inks on the Printing Quality of Porous Pharmaceutical Structures Fabricated by 3D Semi-Solid Extrusion Printing. Pharmaceutical Research, 2022, 39, 1267-1279.	3.5	7
117	Constrained deconvolution methods for NMR spectral enhancement. Journal of Magnetic Resonance, 1986, 68, 564-567.	0.5	6
118	Magnetic resonance in food science - meeting the challenge. Magnetic Resonance in Chemistry, 2011, 49, S1-S1.	1.9	6
119	A multi-technique characterization of the stability of surfactant containing solid dispersion based buccal patches prepared by hot melt injection moulding. International Journal of Pharmaceutics, 2017, 528, 547-562.	5.2	6
120	Gels. , 0, , 151-198.		5
121	Slow dynamics in glassy methyl α-l-rhamnopyranoside studied by 1D NMR exchange experiments. Physical Chemistry Chemical Physics, 2008, 10, 542-549.	2.8	5
122	Coating Formation During Drying of β-Lactoglobulin: Gradual and Sudden Changes. Biomacromolecules, 2015, 16, 76-86.	5.4	5
123	Analysis of single particle photodegradation using photothermal infrared microspectroscopy. Analyst, The, 2013, 138, 2315.	3.5	4
124	Nanostructural Analysis of Water Distribution in Hydrated Multicomponent Gels Using Thermal Analysis and NMR Relaxometry. Molecular Pharmaceutics, 2015, 12, 2068-2079.	4.6	4
125	The functional properties of fats and oils - A richness of diversity. Grasas Y Aceites, 2000, 51, .	0.9	4
126	High resolution 13C n.m.r. of crystalline benzo-15-crown-5 using sideband suppression techniques. Inorganica Chimica Acta, 1983, 77, L201-L202.	2.4	3

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127	Water Transport and Dynamics in Food. , 0, , 68-107.		3
128	Powders and Granular Materials. , 0, , 135-150.		3
129	Wheat-Flour Dough Rheology. , 0, , 199-240.		3
130	Automation Potential of a New, Rapid, Microscopy-Based Method for Screening Drug–Polymer Solubility. ACS Omega, 2020, 5, 11402-11410.	3.5	3
131	Structure and dynamics in l-leucinamide. Journal of Molecular Structure, 2002, 602-603, 71-78.	3.6	2
132	Moisture Uptake of Polyoxyethylene Glycol Glycerides Used as Matrices for Drug Delivery: Kinetic Modelling and Practical Implications. Pharmaceutical Research, 2013, 30, 1123-1136.	3.5	2
133	Thermally induced movement of micro particles observed on a rough surface: A novel observation and its implications for high throughput analysis and synthesis. Thermochimica Acta, 2011, 517, 121-125.	2.7	1
134	Emulsions. , 0, , 1-19.		0
135	Glasses. , 0, , 108-134.		0
136	Science in the Post Modern World. , 2003, , 1-19.		0
137	Proton Relaxation in Crystalline and Glassy Sugars. Special Publication - Royal Society of Chemistry, 0, , 166-172.	0.0	0