Ewan W Blanch

List of Publications by Year
in descending order

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121 papers	5,156 citations	81900 39 h-index	98798 67 g-index
124 all docs	124 docs citations	124 times ranked	4625 citing authors

#	Article	IF	Citations
1	Lactoferrin: Structure, function, denaturation and digestion. Critical Reviews in Food Science and Nutrition, 2019, 59, 580-596.	10.3	255
2	Solution structure and dynamics of biomolecules from Raman optical activity. Progress in Biophysics and Molecular Biology, 2000, 73, 1-49.	2.9	245
3	Is polyproline II helix the killer conformation? a raman optical activity study of the amyloidogenic prefibrillar intermediate of human lysozyme 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 2000, 301, 553-563.	4.2	214
4	A Raman optical activity study of rheomorphism in caseins, synucleins and tau. FEBS Journal, 2002, 269, 148-156.	0.2	214
5	Raman optical activity comes of age. Molecular Physics, 2004, 102, 731-744.	1.7	193
6	A New Perspective on Î²-Sheet Structures Using Vibrational Raman Optical Activity:Â From Poly(l-lysine) to the Prion Protein. Journal of the American Chemical Society, 2003, 125, 10019-10026.	13.7	190
7	Recent advances in the use of vibrational chiroptical spectroscopic methods for stereochemical characterization of natural products. Natural Product Reports, 2015, 32, 1280-1302.	10.3	154
8	Vibrational Raman Optical Activity Characterization of Poly(l-proline) II Helix in Alanine Oligopeptides. Journal of the American Chemical Society, 2004, 126, 5076-5077.	13.7	139
9	A Study of Î±-Helix Hydration in Polypeptides, Proteins, and Viruses Using Vibrational Raman Optical Activity. Journal of the American Chemical Society, 2004, 126, 8181-8188.	13.7	123
10	Solution structure of native proteins with irregular folds from Raman optical activity. Biopolymers, 2001, 58, 138-151.	2.4	118
11	Surface Enhanced Raman Spectroscopy in environmental analysis, monitoring and assessment. Science of the Total Environment, 2020, 720, 137601.	8.0	111
12	Calculation of Raman Optical Activity Spectra of Methyl-Î²-<scp>d</scp>-Glucose Incorporating a Full Molecular Dynamics Simulation of Hydration Effects. Journal of the American Chemical Society, 2011, 133, 4991-4997.	13.7	110
13	Vibrational Raman optical activity of proteins, nucleic acids, and viruses. Methods, 2003, 29, 196-209.	3.8	106
14	Through-space transfer of chiral information mediated by a plasmonic nanomaterial. Nature Chemistry, 2015, 7, 591-596.	13.6	105
15	Unfolded proteins studied by raman optical activity. Advances in Protein Chemistry, 2002, 62, 51-90.	4.4	101
16	Surface enhanced Raman optical activity (SEROA). Chemical Society Reviews, 2008, 37, 980.	38.1	94
17	Molecular structures of viruses from Raman optical activity. Journal of General Virology, 2002, 83, 2593-2600.	2.9	91
18	New Insight into the Solution Structures of Wheat Gluten Proteins from Raman Optical Activityâ€. Biochemistry, 2003, 42, 5665-5673.	2.5	78

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19	Raman Optical Activity Demonstrates Poly(l-proline) II Helix in the N-terminal Region of the Ovine Prion Protein: Implications for Function and Misfunction. Journal of Molecular Biology, 2004, 343, 467-476.	4.2	77
20	Effects and anomalies that can occur in SERS spectra of biological molecules when using a wide range of aggregating agents for hydroxylamine-reduced and citrate-reduced silver colloids. Vibrational Spectroscopy, 2008, 48, 196-201.	2.2	73
21	Tryptophan Absolute Stereochemistry in Viral Coat Proteins from Raman Optical Activity. Journal of the American Chemical Society, 2001, 123, 4863-4864.	13.7	67
22	Raman optical activity instrument for studies of biopolymer structure and dynamics. Journal of Raman Spectroscopy, 1999, 30, 815-825.	2.5	66
23	Structure and Behaviour of Proteins, Nucleic Acids and Viruses from Vibrational Raman Optical Activity. Spectroscopy, 2003, 17, 101-126.	0.8	64
24	Raman and Raman optical activity (ROA) analysis of RNA structural motifs in Domain I of the EMCV IRES. Nucleic Acids Research, 2007, 35, 1169-1177.	14.5	59
25	Shear-Induced Unfolding of Lysozyme Monitored In Situ. Biophysical Journal, 2009, 96, 4231-4236.	0.5	58
26	Antibacterial Properties of Graphene Oxideâ€“Copper Oxide Nanoparticle Nanocomposites. ACS Applied Bio Materials, 2019, 2, 5687-5696.	4.6	57
27	Reorganisation of the Salivary Mucin Network by Dietary Components: Insights from Green Tea Polyphenols. PLoS ONE, 2014, 9, e108372.	2.5	53
28	Raman optical activity of filamentous bacteriophages: hydration of Î±-helices 1 1Edited by A. Klug. Journal of Molecular Biology, 1999, 290, 1-7.	4.2	51
29	Selective DMSO-induced conformational changes in proteins from Raman optical activity. Physical Chemistry Chemical Physics, 2013, 15, 20147.	2.8	51
30	Two-dimensional correlation analysis of Raman optical activity data on the Î±-helix-to-Î²-sheet transition in poly(L-lysine). Molecular Physics, 2006, 104, 1429-1445.	1.7	50
31	Two-dimensional Raman and Raman optical activity correlation analysis of the Î±-helix-to-disordered transition in poly(l-glutamic acid). Analyst, The, 2007, 132, 468-479.	3.5	50
32	pH-induced conformational transitions in Î±-lactalbumin investigated with two-dimensional Raman correlation variance plots and moving windows. Journal of Molecular Structure, 2010, 974, 132-138.	3.6	47
33	Structural characterization of proteins and viruses using Raman optical activity. Vibrational Spectroscopy, 2004, 35, 87-92.	2.2	46
34	A New Route to Carbohydrate Secondary and Tertiary Structure Using Raman Spectroscopy and Raman Optical Activity. Journal of the American Chemical Society, 2010, 132, 10654-10655.	13.7	45
35	New insight into the pHâ€dependent conformational changes in bovine Î²â€lactoglobulin from Raman optical activity. Protein Science, 1999, 8, 1362-1367.	7.6	43
36	Accurate Determination of Protein Secondary Structure Content from Raman and Raman Optical Activity Spectra. Analytical Chemistry, 2010, 82, 6347-6349.	6.5	43

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37	Use of a hydrogel polymer for reproducible surface enhanced Raman optical activity (SEROA). Chemical Communications, 2011, 47, 4754.	4.1	43
38	Raman and ROA Spectra of (âˆ')- and (+)-2-Br-Hexahelicene: Experimental and DFT Studies of a Ï€-Conjugated Chiral System. Journal of Physical Chemistry B, 2013, 117, 2221-2230.	2.6	42
39	Mild thermal treatment and in-vitro digestion of three forms of bovine lactoferrin: Effects on functional properties. International Dairy Journal, 2017, 64, 22-30.	3.0	42
40	Characteristics of bovine lactoferrin powders produced through spray and freeze drying processes. International Journal of Biological Macromolecules, 2017, 95, 985-994.	7.5	41
41	Extraction of keratin from waste chicken feathers using sodium sulfide and l-cysteine. Process Biochemistry, 2019, 82, 205-214.	3.7	41
42	Ribifolin, an Orbitide from Jatropha ribifolia, and Its Potential Antimalarial Activity. Journal of Natural Products, 2015, 78, 374-380.	3.0	39
43	Solution structures of potato virus X and narcissus mosaic virus from Raman optical activity. Journal of General Virology, 2002, 83, 241-246.	2.9	38
44	Conformational dynamics of carbohydrates: Raman optical activity of <scp>d</scp>-glucuronic acid and N-acetyl-<scp>d</scp>-glucosamine using a combined molecular dynamics and quantum chemical approach. Physical Chemistry Chemical Physics, 2015, 17, 6016-6027.	2.8	38
45	Secondary Structure and Glycosylation of Mucus Glycoproteins by Raman Spectroscopies. Analytical Chemistry, 2016, 88, 11609-11615.	6.5	38
46	Raman optical activity characterization of native and molten globule states of equine lysozyme: Comparison with hen lysozyme and bovine Î±-lactalbumin. Biopolymers, 2000, 57, 235-248.	2.4	37
47	A multiâ€component optimisation of experimental parameters for maximising SERS enhancements. Journal of Raman Spectroscopy, 2010, 41, 618-623.	2.5	37
48	Application of two-dimensional correlation analysis to Raman optical activity. Journal of Molecular Structure, 2006, 799, 61-71.	3.6	35
49	Susceptibility of Different Proteins to Flow-Induced Conformational Changes Monitored with Raman Spectroscopy. Biophysical Journal, 2010, 98, 707-714.	0.5	35
50	Enhancing Surface Enhanced Raman Scattering (SERS) Detection of Propranolol with Multiobjective Evolutionary Optimization. Analytical Chemistry, 2012, 84, 7899-7905.	6.5	35
51	Determination of Protein Secondary Structure from Infrared Spectra Using Partial Least-Squares Regression. Biochemistry, 2016, 55, 3794-3802.	2.5	35
52	Preparation and study of digestion behavior of lactoferrin-sodium alginate complex coacervates. Journal of Functional Foods, 2017, 37, 97-106.	3.4	35
53	The Raman optical activity of Î²-<scp>d</scp>-xylose: where experiment and computation meet. Physical Chemistry Chemical Physics, 2015, 17, 21799-21809.	2.8	32
54	Time-Domain THz Spectroscopy Reveals Coupled Proteinâ€“Hydration Dielectric Response in Solutions of Native and Fibrils of Human Lysozyme. Journal of Physical Chemistry B, 2017, 121, 4810-4816.	2.6	32

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55	A comparison of the solution structures of tobacco rattle and tobacco mosaic viruses from Raman optical activity. Journal of General Virology, 2001, 82, 1499-1502.	2.9	31
56	Calculation of Raman optical activity spectra for vibrational analysis. Analyst, The, 2015, 140, 2944-2956.	3.5	29
57	Quantitative detection of codeine in human plasma using surface-enhanced Raman scattering via adaptation of the isotopic labelling principle. Analyst, The, 2017, 142, 1099-1105.	3.5	29
58	Quantification of casein phosphorylation with conformational interpretation using Raman spectroscopy. Analyst, The, 2007, 132, 1053.	3.5	28
59	Investigation of Polypeptide Conformational Transitions with Two-Dimensional Raman Optical Activity Correlation Analysis, Applying Autocorrelation and Moving Window Approaches. Applied Spectroscopy, 2008, 62, 469-475.	2.2	27
60	Raman Microscopy and X-ray Diffraction, a Combined Study of Fibrillin-rich Microfibrillar Elasticity. Journal of Biological Chemistry, 2003, 278, 41189-41197.	3.4	26
61	Microwave-assisted rapid synthesis of spirooxindole-pyrrolizidine analogues and their activity as anti-amyloidogenic agents. Bioorganic Chemistry, 2021, 114, 105128.	4.1	23
62	Potential pitfalls concerning visualization of the 2D results. Journal of Molecular Structure, 2006, 799, 253-258.	3.6	22
63	Raman Optical Activity Spectra and Conformational Elucidation of Chiral Drugs. The Case of the Antiangiogenic Aeroplysinin-1. Journal of Physical Chemistry A, 2011, 115, 2752-2755.	2.5	22
64	Investigation of chemical composition of meat using spatially off-set Raman spectroscopy. Analyst, The, 2019, 144, 2618-2627.	3.5	22
65	Effects of sulfation and the environment on the structure of chondroitin sulfate studiedviaRaman optical activity. Physical Chemistry Chemical Physics, 2019, 21, 7367-7377.	2.8	21
66	Reduced Sweetness of a Monellin (MNEI) Mutant Results from Increased Protein Flexibility and Disruption of a Distant Poly-(L-Proline) II Helix. Chemical Senses, 2011, 36, 425-434.	2.0	20
67	Structure and Absolute Configuration of Diterpenoids from Hymenaea stigonocarpa. Journal of Natural Products, 2015, 78, 1451-1455.	3.0	20
68	Spectrophotometric analysis of nucleic acids: oxygenation-dependant hyperchromism of DNA. Analytical and Bioanalytical Chemistry, 2010, 396, 2331-2339.	3.7	19
69	Multiobjective evolutionary optimisation for surface-enhanced Raman scattering. Analytical and Bioanalytical Chemistry, 2010, 397, 1893-1901.	3.7	19
70	Investigation of DMSOâ€Induced Conformational Transitions in Human Serum Albumin Using Twoâ€Dimensional Raman Optical Activity Spectroscopy. Chirality, 2014, 26, 497-501.	2.6	18
71	Towards improved quantitative analysis using surface-enhanced Raman scattering incorporating internal isotope labelling. Analytical Methods, 2017, 9, 6636-6644.	2.7	18
72	Optically Active Vibrational Spectroscopy of Î±â€Aminoisobutyric Acid Foldamers in Organic Solvents and Phospholipid Bilayers. Chemistry - A European Journal, 2018, 24, 9399-9408.	3.3	18

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73	Natural spirocyclic alkaloids and polyphenols as multi target dementia leads. Bioorganic and Medicinal Chemistry, 2021, 43, 116270.	3.0	18
74	Detecting the Early Onset of Shear-Induced Fibril Formation of Insulin in situ. Journal of Physical Chemistry B, 2011, 115, 2617-2626.	2.6	17
75	Determination of protein fold class from Raman or Raman optical activity spectra using random forests. Protein Science, 2011, 20, 1668-1674.	7.6	17
76	Synthesis of a heparin-related GlcNâ€“IdoA sulfation-site variable disaccharide library and analysis by Raman and ROA spectroscopy. Carbohydrate Research, 2014, 400, 44-53.	2.3	17
77	Raman optical activity of tetra-alanine in the poly(<scp>l</scp>-proline) II type peptide conformation. Physical Chemistry Chemical Physics, 2017, 19, 2078-2086.	2.8	17
78	Raman and Raman optical activity (ROA) analysis of RNA structural motifs. Vibrational Spectroscopy, 2008, 48, 37-43.	2.2	16
79	Raman optical activity of an achiral element in a chiral environment. Journal of Raman Spectroscopy, 2009, 40, 1093-1095.	2.5	16
80	Distinguishing Epimers Through Raman Optical Activity. Journal of Physical Chemistry A, 2016, 120, 1908-1916.	2.5	16
81	Solution Structure of Mannobioses Unravelled by Means of Raman Optical Activity. ChemPhysChem, 2019, 20, 695-705.	2.1	16
82	Drying and denaturation characteristics of three forms of bovine lactoferrin. Drying Technology, 2017, 35, 606-615.	3.1	15
83	Design and characterization of sustainable bioâ€composites from waste chicken feather keratin and thermoplastic polyurethane. Polymer Composites, 2018, 39, E620.	4.6	15
84	Predicted environmental concentration and fate of the top 10 most dispensed Australian prescription pharmaceuticals. Environmental Science and Pollution Research, 2018, 25, 10966-10976.	5.3	15
85	Quantifying factors related to urban metal contamination in vegetable garden soils of the west and north of Melbourne, Australia. Environmental Pollution, 2019, 251, 193-202.	7.5	15
86	Polyglutamine Aggregate Structure In Vitro and In Vivo; New Avenues for Coherent Anti-Stokes Raman Scattering Microscopy. PLoS ONE, 2012, 7, e40536.	2.5	14
87	Investigations of conformational transitions in proteins and RNA using 2DCOS Raman and 2DCOS Raman optical activity spectroscopies. Journal of Molecular Structure, 2008, 883-884, 187-194.	3.6	12
88	Time Dependence of SERS Enhancement for Pyrimidine Nucleosides. Journal of Physical Chemistry C, 2010, 114, 7314-7323.	3.1	12
89	SERS study of methylated and nonmethylated ribonucleosides and the effect of aggregating agents. Journal of Raman Spectroscopy, 2012, 43, 187-195.	2.5	12
90	Absolute configuration assignment of an unusual homoisoflavanone from Polygonum ferrugineum using a combination of chiroptical methods. Tetrahedron Letters, 2015, 56, 6142-6144.	1.4	12

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91	Differentiating various beef cuts using spatially offset Raman spectroscopy. Journal of Raman Spectroscopy, 2020, 51, 711-716.	2.5	12
92	Insight into the Mechanism of Action and Peptideâ€Membrane Interactions of Aibâ€Rich Peptides: Multitechnique Experimental and Theoretical Analysis. ChemBioChem, 2021, 22, 1656-1667.	2.6	11
93	In situ analysis of chiral components of pichtae essential oil by means of ROA spectroscopy: experimental and theoretical Raman and ROA spectra of bornyl acetate. Journal of Raman Spectroscopy, 2012, 43, 286-293.	2.5	10
94	Initial Steps of Amyloidogenic Peptide Assembly Revealed by Coldâ€Ion Spectroscopy. Angewandte Chemie - International Edition, 2018, 57, 213-217.	13.8	10
95	Detection of Biomarkers Relating to Quality and Differentiation of Some Commercially Significant Whole Fish Using Spatially Off-Set Raman Spectroscopy. Molecules, 2020, 25, 3776.	3.8	10
96	Delivery of antimicrobial peptides to model membranes by cubosome nanocarriers. Journal of Colloid and Interface Science, 2021, 600, 14-22.	9.4	10
97	Cottonâ€"Mouton effect, magnetic anisotropy and charge delocalization of 2,4,6-tris(dimethylamino)-1,3,5-triazine. Comparison with 1,3,5-triazine. Journal of Molecular Structure, 1991, 248, 201-209.	3.6	9
98	Raman Optical Activity. , 2018, , 249-291.		9
99	Infrared Spectroscopy-Based Metabolomic Analysis for the Detection of Preharvest Sprouting in Grain. Cereal Chemistry, 2016, 93, 444-449.	2.2	8
100	Spatially offset Raman spectroscopy: A convenient and rapid tool to distinguish cheese made with milks from different animal species. Journal of Raman Spectroscopy, 2021, 52, 1705-1711.	2.5	7
101	Recent Developments In Raman Optical Activity Calculations On Biomolecules (Mini-review). Current Physical Chemistry, 2013, 3, 140-150.	0.2	7
102	Rayleigh Depolarization Ratios, Kerr Effects, Polarizabilities, and Hyperpolarizabilities of CH3Br, CH2Br2, CHBr3, and CBr4. Comparison of Experimental and ab Initio Calculated Polarizabilities. Journal of Physical Chemistry A, 2002, 106, 4257-4262.	2.5	6
103	Raman optical activity of a flavone C-diglycoside: Aqueous solution conformations and absolute configuration. Vibrational Spectroscopy, 2017, 91, 136-140.	2.2	6
104	Phosphorylation Detection and Characterization in Ribonucleotides Using Raman and Raman Optical Activity(ROA) Spectroscopies. Applied Spectroscopy, 2012, 66, 289-293.	2.2	5
105	Temperature Dependence of the Electrooptical Kerr Effect:â€‰Anisotropic Electric Dipole Polarizabilities of NH3, CH3NH2, (CH3)2NH, and (CH3)3N. Journal of Physical Chemistry A, 2003, 107, 2093-2099.	2.5	4
106	A Simple Approach to Normalization for Spectroscopic Data Mining. Applied Spectroscopy, 2005, 59, 542-544.	2.2	4
107	Raman optical activity. , 2006, , 545-594.		4
108	The computational prediction of Raman and ROA spectra of charged histidine tautomers in aqueous solution. Physical Chemistry Chemical Physics, 2016, 18, 27377-27389.	2.8	4

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109	Regioselective pyrrolizidine bis-spirooxindoles as efficient anti-amyloidogenic agents. European Journal of Medicinal Chemistry, 2022, 240, 114566.	5.5	4
110	Raman Optical Activity of Biological Samples. Challenges and Advances in Computational Chemistry and Physics, 2014, , 61-81.	0.6	3
111	Surface-Enhanced Raman Optical Activity (SEROA). , 2017, , 376-382.		3
112	Resveratrolâ€™s Hidden Hand: A Route to the Optical Detection of Biomolecular Binding. Journal of Physical Chemistry B, 2018, 122, 2841-2850.	2.6	3
113	Raman Optical Activity of Biological Molecules. Biological and Medical Physics Series, 2010, , 153-177.	0.4	3
114	Solution structure of native proteins with irregular folds from Raman optical activity. , 2001, 58, 138.		2
115	Chemoselective [3 + 2] annulation of oxime acetate with 2-aryl-3-ethoxycarbonyl-pyrroline-4,5-dione: an entry to pyrrolo[2,3-b]pyrrole derivatives. Organic and Biomolecular Chemistry, 2021, 19, 7875-7882.	2.8	1
116	Carbohydrate Secondary and Tertiary Structure Using Raman Spectroscopy. , 2015, , 1181-1218.		1
117	The Band Assignment Parser: A Tool to Identify Band Assignments in Research Publications. Applied Spectroscopy, 2007, 61, 346-347.	2.2	0
118	Raman Spectroscopic Studies of Structural Changes of Insulin in Controlled Fluid Flows. , 2010, , .		0
119	Using Machine Learning to Predict Protein Structure from Spectral Data. , 2010, , .		0
120	Raman Spectroscopy And Chemometrics To Investigate Time Dependent Physical Changes Of Insulin In Shear Stress Conditions. , 2010, , .		0
121	Carbohydrate Secondary and Tertiary Structure Using Raman Spectroscopy. , 2014, , 1-31.		0