Hugh J. Byrne

List of Publications by Year in descending order

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404 papers 14,472 citations

59 h-index 30848 102 g-index

416 all docs

416 docs citations

416 times ranked

16140 citing authors

#	Article	IF	CITATIONS
1	In vitro toxicity evaluation of single walled carbon nanotubes on human A549 lung cells. Toxicology in Vitro, 2007, 21, 438-448.	1.1	399
2	Resonant Mie Scattering (RMieS) correction of infrared spectra from highly scattering biological samples. Analyst, The, 2010, 135, 268-277.	1.7	332
3	Reverse saturable absorption in tetraphenylporphyrins. Optics Communications, 1985, 56, 25-29.	1.0	281
4	Resonant Mie scattering in infrared spectroscopy of biological materials – understanding the â€~dispersion artefact'. Analyst, The, 2009, 134, 1586.	1.7	276
5	Spectroscopic analysis confirms the interactions between single walled carbon nanotubes and various dyes commonly used to assess cytotoxicity. Carbon, 2007, 45, 1425-1432.	5 . 4	274
6	Selective Interaction of a Semiconjugated Organic Polymer with Single-Wall Nanotubes. Journal of Physical Chemistry B, 2000, 104, 10012-10016.	1,2	254
7	Large infrared nonlinear optical response of C60. Physical Review Letters, 1991, 67, 1423-1425.	2.9	242
8	Surface enhanced Raman scattering with gold nanoparticles: effect of particle shape. Analytical Methods, 2014, 6, 9116-9123.	1.3	236
9	A new approach to the toxicity testing of carbon-based nanomaterials—The clonogenic assay. Toxicology Letters, 2007, 174, 49-60.	0.4	233
10	A Microscopic and Spectroscopic Study of Interactions between Carbon Nanotubes and a Conjugated Polymer. Journal of Physical Chemistry B, 2002, 106, 2210-2216.	1.2	221
11	Vibrational spectroscopy for cervical cancer pathology, from biochemical analysis to diagnostic tool. Experimental and Molecular Pathology, 2007, 82, 121-129.	0.9	214
12	Dual Targeted Immunotherapy via In Vivo Delivery of Biohybrid RNAiâ€Peptide Nanoparticles to Tumorâ€Associated Macrophages and Cancer Cells. Advanced Functional Materials, 2015, 25, 4183-4194.	7.8	196
13	Reactive oxygen species (ROS) induced cytokine production and cytotoxicity of PAMAM dendrimers in J774A.1 cells. Toxicology and Applied Pharmacology, 2010, 246, 91-99.	1.3	186
14	A study examining the effects of tissue processing on human tissue sections using vibrational spectroscopy. Vibrational Spectroscopy, 2005, 38, 121-127.	1.2	182
15	Understanding the molecular information contained in principal component analysis of vibrational spectra of biological systems. Analyst, The, 2012, 137, 322-332.	1.7	182
16	Cell viability assessment using the Alamar blue assay: A comparison of 2D and 3D cell culture models. Toxicology in Vitro, 2015, 29, 124-131.	1.1	182
17	Ecotoxicological assessment of silica and polystyrene nanoparticles assessed by a multitrophic test battery. Environment International, 2013, 51, 97-105.	4.8	178
18	Clinical applications of infrared and Raman spectroscopy: state of play and future challenges. Analyst, The, 2018, 143, 1735-1757.	1.7	163

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19	Single walled carbon nanotubes induce indirect cytotoxicity by medium depletion in A549 lung cells. Toxicology Letters, 2008, 179, 78-84.	0.4	160
20	Ultrasound-Assisted SWNTs Dispersion: Effects of Sonication Parameters and Solvent Properties. Journal of Physical Chemistry C, 2010, 114, 8821-8827.	1.5	158
21	Mechanistic studies of in vitro cytotoxicity of poly(amidoamine) dendrimers in mammalian cells. Toxicology and Applied Pharmacology, 2010, 248, 259-268.	1.3	146
22	Spectral pre and post processing for infrared and Raman spectroscopy of biological tissues and cells. Chemical Society Reviews, 2016, 45, 1865-1878.	18.7	143
23	Minimal analytical characterization of engineered nanomaterials needed for hazard assessment in biological matrices. Nanotoxicology, 2011, 5, 1-11.	1.6	141
24	Exosomes Are Involved in Mediating Radiation Induced Bystander Signaling in Human Keratinocyte Cells. Radiation Research, 2014, 181, 138-145.	0.7	141
25	In vitro mammalian cytotoxicological study of PAMAM dendrimers – Towards quantitative structure activity relationships. Toxicology in Vitro, 2010, 24, 169-177.	1.1	132
26	Raman Spectroscopic Evaluation of Efficacy of Current Paraffin Wax Section Dewaxing Agents. Journal of Histochemistry and Cytochemistry, 2005, 53, 121-129.	1.3	128
27	How Adverse Outcome Pathways Can Aid the Development and Use of Computational Prediction Models for Regulatory Toxicology. Toxicological Sciences, 2017, 155, 326-336.	1.4	125
28	Comprehensive analysis of intermolecular charge-transfer excited states in C60 and C70 films. Physical Review B, 1998, 58, 7689-7700.	1.1	124
29	Studies of chemical fixation effects in human cell lines using Raman microspectroscopy. Analytical and Bioanalytical Chemistry, 2010, 396, 1781-1791.	1.9	122
30	Reflection contributions to the dispersion artefact in FTIR spectra of single biological cells. Analyst, The, 2009, 134, 1171.	1.7	118
31	Concern-driven integrated approaches to nanomaterial testing and assessment – report of the NanoSafety Cluster Working Group 10. Nanotoxicology, 2014, 8, 334-348.	1.6	118
32	Evaluation of the potential of Raman microspectroscopy for prediction of chemotherapeutic response to cisplatin in lung adenocarcinoma. Analyst, The, 2010, 135, 3070.	1.7	117
33	Characterization of the Interaction of Gamma Cyclodextrin with Single-Walled Carbon Nanotubes. Nano Letters, 2003, 3, 843-846.	4.5	112
34	Probing the interaction of single walled carbon nanotubes within cell culture medium as a precursor to toxicity testing. Carbon, 2007, 45, 34-40.	5.4	111
35	Spectropathology for the next generation: Quo vadis?. Analyst, The, 2015, 140, 2066-2073.	1.7	106
36	Growth substrate induced functional changes elucidated by FTIR and Raman spectroscopy in in–vitro cultured human keratinocytes. Analytical and Bioanalytical Chemistry, 2007, 387, 1717-1728.	1.9	100

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37	Non-linear optical properties of Group 10 metal alkynyls and their polymers. Journal of Materials Chemistry, 1991, 1, 245.	6.7	98
38	Optimal choice of sample substrate and laser wavelength for Raman spectroscopic analysis of biological specimen. Analytical Methods, 2015, 7, 5041-5052.	1.3	93
39	Evolution and evaluation of the polymer/nanotube composite. Synthetic Metals, 1999, 103, 2559-2562.	2.1	92
40	The characterisation of a novel, covalently modified, amphiphilic alginate derivative, which retains gelling and non-toxic properties. Journal of Colloid and Interface Science, 2006, 298, 154-161.	5.0	90
41	Dispersion medium modulates oxidative stress response of human lung epithelial cells upon exposure to carbon nanomaterial samples. Toxicology and Applied Pharmacology, 2009, 236, 276-281.	1.3	90
42	SWCNT suppress inflammatory mediator responses in human lung epithelium in vitro. Toxicology and Applied Pharmacology, 2009, 234, 378-390.	1.3	89
43	Experimental observation of individual single-wall nanotube species by Raman microscopy. Chemical Physics Letters, 1999, 310, 8-14.	1.2	88
44	Improved protocols for vibrational spectroscopic analysis of body fluids. Journal of Biophotonics, 2014, 7, 167-179.	1.1	87
45	Carbon-nanotube nucleated crystallinity in a conjugated polymer based composite. Chemical Physics Letters, 2004, 391, 329-333.	1.2	86
46	Investigation of Sodium Dodecyl Benzene Sulfonate Assisted Dispersion and Debundling of Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 332-337.	1.5	82
47	Polyamidoamine dendrimer nanoparticle cytotoxicity, oxidative stress, caspase activation and inflammatory response: experimental observation and numerical simulation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 202-211.	1.7	81
48	Chromatography of carbon nanotubes. Synthetic Metals, 1999, 103, 2484-2485.	2.1	80
49	Intracellular localisation, geno- and cytotoxic response of polyN-isopropylacrylamide (PNIPAM) nanoparticles to human keratinocyte (HaCaT) and colon cells (SW 480). Toxicology Letters, 2010, 198, 134-143.	0.4	80
50	Raman micro spectroscopy for in vitro drug screening: subcellular localisation and interactions of doxorubicin. Analyst, The, 2015, 140, 4212-4223.	1.7	80
51	Comparison of subcellular responses for the evaluation and prediction of the chemotherapeutic response to cisplatin in lung adenocarcinoma using Raman spectroscopy. Analyst, The, 2011, 136, 2450.	1.7	77
52	Identifying and localizing intracellular nanoparticles using Raman spectroscopy. Analyst, The, 2012, 137, 1111.	1.7	76
53	Solubilization of SWNTs with Organic Dye Molecules. Journal of Physical Chemistry B, 2004, 108, 18860-18865.	1.2	73
54	Raman spectroscopy for screening and diagnosis of cervical cancer. Analytical and Bioanalytical Chemistry, 2015, 407, 8279-8289.	1.9	73

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55	Three-photon enhanced optical nonlinearity of poly(3-butylthiophene). Synthetic Metals, 1989, 32, 229-235.	2.1	66
56	Raman spectroscopic analysis of human skin tissue sections <i>ex-vivo</i> : evaluation of the effects of tissue processing and dewaxing. Journal of Biomedical Optics, 2012, 18, 061202.	1.4	66
57	Study of phenolic extractability in grape seeds by means of ATR-FTIR and Raman spectroscopy. Food Chemistry, 2017, 232, 602-609.	4.2	63
58	Cold Atmospheric Plasma Induces ATP-Dependent Endocytosis of Nanoparticles and Synergistic U373MG Cancer Cell Death. Scientific Reports, 2018, 8, 5298.	1.6	62
59	A comparison of Raman, FTIR and ATR-FTIR micro spectroscopy for imaging human skin tissue sections. Analytical Methods, 2013, 5, 2281.	1.3	61
60	Prediction of viral loads for diagnosis of Hepatitis C infection in human plasma samples using Raman spectroscopy coupled with partial least squares regression analysis. Journal of Raman Spectroscopy, 2017, 48, 697-704.	1.2	61
61	An Ecotoxicological Study of <i>Poly(amidoamine)</i> Dendrimers-Toward Quantitative Structure Activity Relationships. Environmental Science & Environm	4.6	60
62	Picosecond optical phase conjugation using conjugated organic molecules. Chemical Physics, 1988, 121, 21-39.	0.9	59
63	<i>In vitro</i> analysis of immersed human tissues by Raman microspectroscopy. Journal of Raman Spectroscopy, 2011, 42, 888-896.	1.2	59
64	Imaging live cells grown on a three dimensional collagen matrix using Raman microspectroscopy. Analyst, The, 2010, 135, 3169.	1.7	58
65	Analysis of human skin tissue by Raman microspectroscopy: Dealing with the background. Vibrational Spectroscopy, 2012, 61, 124-132.	1.2	57
66	Industrial grade 2D molybdenum disulphide (MoS ₂): an <i>in vitro</i> exploration of the impact on cellular uptake, cytotoxicity, and inflammation. 2D Materials, 2017, 4, 025065.	2.0	57
67	Monitoring doxorubicin cellular uptake and trafficking using in vitro Raman microspectroscopy: short and long time exposure effects on lung cancer cell lines. Analytical and Bioanalytical Chemistry, 2017, 409, 1333-1346.	1.9	57
68	Generation of intracellular reactive oxygen species and genotoxicity effect to exposure of nanosized polyamidoamine (PAMAM) dendrimers in PLHC-1 cells in vitro. Aquatic Toxicology, 2013, 132-133, 61-72.	1.9	56
69	Ultra-filtration of human serum for improved quantitative analysis of low molecular weight biomarkers using ATR-IR spectroscopy. Analyst, The, 2017, 142, 1285-1298.	1.7	56
70	Raman spectroscopy of blood plasma samples from breast cancer patients at different stages. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 222, 117210.	2.0	56
71	Preparation, characterization of NIPAM and NIPAM/BAM copolymer nanoparticles and their acute toxicity testing using an aquatic test battery. Aquatic Toxicology, 2009, 92, 146-154.	1.9	55
72	Steady state photoconductive response of C60/C70 films. Solid State Communications, 1992, 81, 261-264.	0.9	54

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73	Towards processing of carbon nanotubes for technical applications. Applied Physics A: Materials Science and Processing, 1999, 69, 269-274.	1.1	54
74	Investigation of the influence of high-risk human papillomavirus on the biochemical composition of cervical cancer cells using vibrational spectroscopy. Analyst, The, 2010, 135, 3087.	1.7	54
75	Fourier Transform Infrared Microspectroscopy and Multivariate Methods for Radiobiological Dosimetry. Radiation Research, 2010, 173, 225-237.	0.7	53
76	Quantitative reagent-free detection of fibrinogen levels in human blood plasma using Raman spectroscopy. Analyst, The, 2012, 137, 1807.	1.7	53
77	Raman spectral analysis for rapid screening of dengue infection. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 200, 136-142.	2.0	53
78	A functional conjugated polymer to process, purify and selectively interact with single wall carbon nanotubes. Synthetic Metals, 2001, 121, 1217-1218.	2.1	52
79	Raman micro-spectroscopy for rapid screening of oral squamous cell carcinoma. Experimental and Molecular Pathology, 2015, 98, 502-509.	0.9	52
80	Excited-state quenching of a highly luminescent conjugated polymer. Applied Physics Letters, 2001, 78, 1059-1061.	1.5	51
81	Screening the low molecular weight fraction of human serum using ATR-IR spectroscopy. Journal of Biophotonics, 2016, 9, 1085-1097.	1.1	51
82	Spectroscopic Analysis of Single-Walled Carbon Nanotubes and Semiconjugated Polymer Composites. Journal of Physical Chemistry B, 2004, 108, 6233-6241.	1.2	50
83	Raman spectroscopy – a potential platform for the rapid measurement of carbon nanotube-induced cytotoxicity. Analyst, The, 2009, 134, 1182.	1.7	50
84	Systematic Study of the Dispersion of SWNTs in Organic Solvents. Journal of Physical Chemistry C, 2010, 114, 4857-4863.	1.5	50
85	Surface Enhanced Raman Spectroscopy for Quantitative Analysis: Results of a Large-Scale European Multi-Instrument Interlaboratory Study. Analytical Chemistry, 2020, 92, 4053-4064.	3.2	50
86	Optical Spectroscopy of Isolated and Aggregate Hexabenzocoronene Derivatives:Â A Study of Self-Assembling Molecular Nanowires. Journal of Physical Chemistry B, 2003, 107, 37-43.	1.2	49
87	Effect of Solvent Solubility Parameters on the Dispersion of Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 20154-20158.	1.5	49
88	Vibrational spectroscopic analysis of body fluids: avoiding molecular contamination using centrifugal filtration. Analytical Methods, 2014, 6, 5155.	1.3	49
89	Toxicology of Engineered Nanoparticles: Focus on Poly(amidoamine) Dendrimers. International Journal of Environmental Research and Public Health, 2018, 15, 338.	1.2	48
90	Quantitative analysis of human blood serum using vibrational spectroscopy. Clinical Spectroscopy, 2020, 2, 100004.	0.6	48

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91	Raman studies of photochemical reactions in fullerene films. Chemical Physics Letters, 1993, 212, 384-390.	1.2	47
92	Comparison of Micro- and Nanoscale Fe+3–Containing (Hematite) Particles for Their Toxicological Properties in Human Lung Cells In Vitro. Toxicological Sciences, 2012, 126, 173-182.	1.4	47
93	Correlation of the Adhesive Properties of Cells to N-Isopropylacrylamide/N-tert-Butylacrylamide Copolymer Surfaces with Changes in Surface Structure Using Contact Angle Measurements, Molecular Simulations, and Raman Spectroscopy. Chemistry of Materials, 2005, 17, 3889-3898.	3.2	46
94	In-Depth Study into the Interaction of Single Walled carbon Nanotubes with Anthracene andp-Terphenyl. Journal of Physical Chemistry B, 2006, 110, 3895-3901.	1.2	46
95	Correlation of p16INK4A expression and HPV copy number with cellular FTIR spectroscopic signatures of cervical cancer cells. Analyst, The, 2011, 136, 1365.	1.7	46
96	Linking ATR-FTIR and Raman features to phenolic extractability and other attributes in grape skin. Talanta, 2017, 167, 44-50.	2.9	46
97	Comparability of Raman Spectroscopic Configurations: A Large Scale Cross-Laboratory Study. Analytical Chemistry, 2020, 92, 15745-15756.	3.2	46
98	Raman spectroscopy in nanomedicine: current status and future perspective. Nanomedicine, 2013, 8, 1335-1351.	1.7	45
99	Graphene Nanoflake Uptake Mediated by Scavenger Receptors. Nano Letters, 2019, 19, 1260-1268.	4.5	45
100	Effect of substrate choice and tissue type on tissue preparation for spectral histopathology by Raman microspectroscopy. Analyst, The, 2014, 139, 446-454.	1.7	44
101	Vibrational spectroscopy as a tool for studying drug-cell interaction: Could high throughput vibrational spectroscopic screening improve drug development?. Vibrational Spectroscopy, 2017, 91, 16-30.	1.2	44
102	Synthesis and optical properties of phenylene-vinylene copolymers. Synthetic Metals, 1999, 103, 2478-2479.	2.1	43
103	Raman microspectroscopy for the early detection of pre-malignant changes in cervical tissue. Experimental and Molecular Pathology, 2014, 97, 554-564.	0.9	43
104	Potential of Raman spectroscopy for the analysis of plasma/serum in the liquid state: recent advances. Analytical and Bioanalytical Chemistry, 2020, 412, 1993-2007.	1.9	43
105	Differentiating responses of lung cancer cell lines to Doxorubicin exposure: ⟨i⟩in vitro⟨/i⟩ Raman micro spectroscopy, oxidative stress and bclâ€2 protein expression. Journal of Biophotonics, 2017, 10, 151-165.	1.1	42
106	Effect of carbon nanotube-fullerene hybrid additive on P3HT:PCBM bulk-heterojunction organic photovoltaics. Synthetic Metals, 2012, 162, 95-101.	2.1	41
107	Reactive oxygen species mediated DNA damage in human lung alveolar epithelial (A549) cells from exposure to non-cytotoxic MFI-type zeolite nanoparticles. Toxicology Letters, 2012, 215, 151-160.	0.4	41
108	Raman micro spectroscopy study of the interaction of vincristine with A549 cells supported by expression analysis of bcl-2 protein. Analyst, The, 2013, 138, 6177.	1.7	41

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109	Plasmonic gold nanoparticles for detection of fungi and human cutaneous fungal infections. Analytical and Bioanalytical Chemistry, 2017, 409, 4647-4658.	1.9	41
110	Optical Absorption and Fluorescence of a Multi-walled Nanotube-Polymer Composite. Synthetic Metals, 1999, 102, 1176-1177.	2.1	40
111	Assessment of an osteoblast-like cell line as a model for human primary osteoblasts using Raman spectroscopy. Analyst, The, 2012, 137, 1559.	1.7	40
112	Numerical simulations of in vitro nanoparticle toxicity – The case of poly(amido amine) dendrimers. Toxicology in Vitro, 2014, 28, 1449-1460.	1.1	40
113	Vibrational spectroscopy in sensing radiobiological effects: analyses of targeted and non-targeted effects in human keratinocytes. Faraday Discussions, 2016, 187, 213-234.	1.6	40
114	Controlling the optical properties of a conjugated co-polymer through variation of backbone isomerism and the introduction of carbon nanotubes. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 144, 31-41.	2.0	39
115	Discrimination of cathinone regioisomers, sold as â€`legal highs', by Raman spectroscopy. Drug Testing and Analysis, 2014, 6, 651-657.	1.6	39
116	Complex nano-assemblies of polymers and carbon nanotubes. Nanotechnology, 2001, 12, 187-190.	1.3	38
117	Purification and isolation of SWNTs. Carbon, 2004, 42, 1031-1035.	5.4	38
118	Cellular discrimination using in vitro Raman micro spectroscopy: the role of the nucleolus. Analyst, The, 2015, 140, 5908-5919.	1.7	38
119	Enabling quantification of protein concentration in human serum biopsies using attenuated total reflectance – Fourier transform infrared (ATR-FTIR) spectroscopy. Vibrational Spectroscopy, 2018, 99, 50-58.	1.2	37
120	Processing ThinPrep cervical cytological samples for Raman spectroscopic analysis. Analytical Methods, 2014, 6, 7831-7841.	1.3	36
121	Multivariate statistical methodologies applied in biomedical Raman spectroscopy: assessing the validity of partial least squares regression using simulated model datasets. Analyst, The, 2015, 140, 2482-2492.	1.7	36
122	Principal components analysis of Raman spectral data for screening of Hepatitis C infection. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 221, 117173.	2.0	36
123	Self-cleaning hydrophobic nanocoating on glass: A scalable manufacturing process. Materials Chemistry and Physics, 2020, 239, 122000.	2.0	36
124	Time-resolved photoluminescence of solid state fullerenes. Chemical Physics Letters, 1993, 204, 461-466.	1,2	35
125	Nonlinear luminescence phenomena in fullerene crystallites. Applied Physics A: Materials Science and Processing, 1993, 56, 235-239.	1.1	35
126	An investigation of the RWPE prostate derived family of cell lines using FTIR spectroscopy. Analyst, The, 2010, 135, 887.	1.7	35

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127	Raman spectroscopic mapping for the analysis of solar radiation induced skin damage. Analyst, The, 2013, 138, 3946.	1.7	35
128	Electric field standing wave effects in FT-IR transflection spectra of biological tissue sections: Simulated models of experimental variability. Vibrational Spectroscopy, 2013, 69, 84-92.	1.2	35
129	Raman spectroscopy for cytopathology of exfoliated cervical cells. Faraday Discussions, 2016, 187, 187-198.	1.6	35
130	Raman spectroscopic screening of high and low molecular weight fractions of human serum. Analyst, The, 2019, 144, 4295-4311.	1.7	35
131	Structureâ^'Property Relationships for Electronâ^'Vibrational Coupling in Conjugated Organic Oligomeric Systems. Journal of Physical Chemistry B, 2005, 109, 12685-12690.	1.2	34
132	Interaction of Carbon Nanotubes with Sugar Complexes. Synthetic Metals, 2005, 153, 357-360.	2.1	34
133	Photoconductivity of thin film fullerenes; Effect of oxygen and thermal annealing. Solid State Communications, 1993, 87, 281-284.	0.9	33
134	Investigating the role of shape on the biological impact of gold nanoparticles <i>in vitro</i> Nanomedicine, 2015, 10, 2643-2657.	1.7	33
135	Recent advances in optical diagnosis of oral cancers: Review and future perspectives. Head and Neck, 2016, 38, E2403-11.	0.9	33
136	Retention systems for extraoral maxillofacial prosthetic implants: a critical review. British Journal of Oral and Maxillofacial Surgery, 2017, 55, 763-769.	0.4	33
137	Comparative studies of cellular viability levels on 2D and 3D in vitro culture matrices. Cytotechnology, 2018, 70, 261-273.	0.7	33
138	Reactive oxygen species and nitric oxide signaling in bystander cells. PLoS ONE, 2018, 13, e0195371.	1.1	32
139	Vibrational characterization of granulosa cells from patients affected by unilateral ovarian endometriosis: New insights from infrared and Raman microspectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 212, 206-214.	2.0	32
140	Qualitative and quantitative analysis of therapeutic solutions using Raman and infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 218, 97-108.	2.0	31
141	Analysis of bodily fluids using vibrational spectroscopy: a direct comparison of Raman scattering and infrared absorption techniques for the case of glucose in blood serum. Analyst, The, 2019, 144, 3334-3346.	1.7	31
142	Systematic Study of the Effects of Naphthalene and Anthracene Substitution on the Properties of PPV Derivative Conjugated Systems. Macromolecules, 2007, 40, 7895-7901.	2.2	30
143	Raman spectroscopy for the characterization of the polymerization rate in an acrylamide-based photopolymer. Applied Optics, 2008, 47, 206.	2.1	30
144	Effects of salinity on the toxicity of ionic silver and Ag-PVP nanoparticles to Tisbe battagliai and Ceramium tenuicorne. Ecotoxicology and Environmental Safety, 2012, 86, 101-110.	2.9	30

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145	Nonlinear optical properties of carbon nanotube hybrids in polymer dispersions. Materials Chemistry and Physics, 2012, 133, 992-997.	2.0	30
146	Spectroscopic studies of anthracyclines: Structural characterization and in vitro tracking. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 169, 152-160.	2.0	30
147	Picosecond spectroscopy and hyperlinear photoluminescence in poly(para-phenylene)-type ladder polymers. Physical Review B, 1997, 56, 1632-1636.	1.1	29
148	Comparison of structure and organization of cutaneous lipids in a reconstructed skin model and human skin: spectroscopic imaging and chromatographic profiling. Experimental Dermatology, 2014, 23, 441-443.	1.4	29
149	Chemotherapeutic efficiency of drugs in vitro: Comparison of doxorubicin exposure in 3D and 2D culture matrices. Toxicology in Vitro, 2016, 33, 99-104.	1.1	29
150	Effects of Self-directed Exercise Programmes on Individuals with Type 2 Diabetes Mellitus: A Systematic Review Evaluating Their Effect on HbA1c and Other Metabolic Outcomes, Physical Characteristics, Cardiorespiratory Fitness and Functional Outcomes. Sports Medicine, 2017, 47, 717-733.	3.1	29
151	Doxorubicin kinetics and effects on lung cancer cell lines using ⟨i⟩in vitro⟨li⟩ Raman microâ€spectroscopy: binding signatures, drug resistance and DNA repair. Journal of Biophotonics, 2018, 11, e201700060.	1.1	29
152	pH-Dependent silica nanoparticle dissolution and cargo release. Colloids and Surfaces B: Biointerfaces, 2018, 169, 242-248.	2.5	28
153	ATR-IR spectroscopy for rapid quantification of water content in deep eutectic solvents. Journal of Molecular Liquids, 2020, 311, 113361.	2.3	28
154	Spectroscopic investigation of conjugated polymer/single-walled carbon nanotube interactions. Chemical Physics Letters, 2001, 350, 27-32.	1.2	27
155	Optical limiting study of double wall carbon nanotube–Fullerene hybrids. Chemical Physics Letters, 2010, 489, 207-211.	1.2	27
156	Spectral cross-correlation as a supervised approach for the analysis of complex Raman datasets: the case of nanoparticles in biological cells. Analyst, The, 2012, 137, 5792.	1.7	27
157	The bio-nano-interface in predicting nanoparticle fate and behaviour in living organisms: towards grouping and categorising nanomaterials and ensuring nanosafety by design. BioNanoMaterials, 2013, 14, .	1.4	27
158	Vibrational Microspectroscopy for Cancer Screening. Applied Sciences (Switzerland), 2015, 5, 23-35.	1.3	27
159	Evaluation of cytotoxicity profile and intracellular localisation of doxorubicin-loaded chitosan nanoparticles. Analytical and Bioanalytical Chemistry, 2016, 408, 5443-5455.	1.9	27
160	A Study of the Interaction between Single-Walled Carbon Nanotubes and Polycyclic Aromatic Hydrocarbons: Toward Structureâ^Property Relationships. Journal of Physical Chemistry C, 2008, 112, 10418-10422.	1.5	26
161	Three dimensional collagen gels as a cell culture matrix for the study of live cells by Raman spectroscopy. Analyst, The, 2010, 135, 1697.	1.7	26
162	In vitro monitoring of time and dose dependent cytotoxicity of aminated nanoparticles using Raman spectroscopy. Analyst, The, 2016, 141, 5417-5431.	1.7	26

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163	Raman spectroscopic analysis of high molecular weight proteins in solution $\hat{a} \in \text{``considerations for sample analysis and data pre-processing. Analyst, The, 2018, 143, 5987-5998.}$	1.7	26
164	Nonlinear optical studies of graded enyne oligomers. Chemical Physics Letters, 1990, 167, 484-489.	1.2	25
165	Investigating the use of Raman and immersion Raman spectroscopy for spectral histopathology of metastatic brain cancer and primary sites of origin. Analytical Methods, 2014, 6, 3948-3961.	1.3	25
166	Determination of nanoparticle localisation within subcellular organelles in vitro using Raman spectroscopy. Analytical Methods, 2015, 7, 10000-10017.	1.3	25
167	Biomedical applications of vibrational spectroscopy: Oral cancer diagnostics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 252, 119470.	2.0	25
168	Improved protocols for pre-processing Raman spectra of formalin fixed paraffin preserved tissue sections. Analytical Methods, 2017, 9, 4709-4717.	1.3	25
169	Application of Box-Behnken experimental design for the formulation and optimisation of selenomethionine-loaded chitosan nanoparticles coated with zein for oral delivery. International Journal of Pharmaceutics, 2018, 551, 257-269.	2.6	24
170	Reversible photochemical processes in fullerenes. A Raman study. Chemical Physics Letters, 1993, 215, 131-136.	1.2	23
171	Raman spectroscopic study of excited states and photo-polymerisation of C60 from solution. Chemical Physics Letters, 1999, 302, 307-311.	1.2	23
172	Spectroscopic and chemometric approaches to radiobiological analyses. Mutation Research - Reviews in Mutation Research, 2010, 704, 108-114.	2.4	23
173	Investigating the Role of Gold Nanoparticle Shape and Size in Their Toxicities to Fungi. International Journal of Environmental Research and Public Health, 2018, 15, 998.	1.2	23
174	Cold Atmospheric Plasma Stimulates Clathrin-Dependent Endocytosis to Repair Oxidised Membrane and Enhance Uptake of Nanomaterial in Glioblastoma Multiforme Cells. Scientific Reports, 2020, 10, 6985.	1.6	23
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