James W Chan

List of Publications by Year
in descending order

45 papers	2,296 citations	279487 23 h-index	233125 45 g-index
46 all docs	46 docs citations	46 times ranked	2968 citing authors

#	Article	IF	Citations
1	Micro-Raman Spectroscopy Detects Individual Neoplastic and Normal Hematopoietic Cells. Biophysical Journal, 2006, 90, 648-656.	0.2	577
2	Nondestructive Identification of Individual Leukemia Cells by Laser Trapping Raman Spectroscopy. Analytical Chemistry, 2008, 80, 2180-2187.	3.2	193
3	Label-Free Separation of Human Embryonic Stem Cells and Their Cardiac Derivatives Using Raman Spectroscopy. Analytical Chemistry, 2009, 81, 1324-1331.	3.2	178
4	An integrated optofluidic platform for Raman-activated cell sorting. Lab on A Chip, 2008, 8, 1116.	3.1	161
5	Recent advances in laser tweezers Raman spectroscopy (LTRS) for labelâ€free analysis of single cells. Journal of Biophotonics, 2013, 6, 36-48.	1.1	86
6	Labelâ€free biochemical characterization of stem cells using vibrational spectroscopy. Journal of Biophotonics, 2009, 2, 656-668.	1.1	80
7	Effect of Cefazolin Treatment on the Nonresonant Raman Signatures of the Metabolic State of Individual Escherichia coli Cells. Analytical Chemistry, 2010, 82, 2703-2710.	3.2	67
8	Raman spectroscopy for physiological investigations of tissues and cells. Advanced Drug Delivery Reviews, 2015, 89, 57-70.	6.6	66
9	The effect of cell fixation on the discrimination of normal and leukemia cells with laser tweezers Raman spectroscopy. Biopolymers, 2009, 91, 132-139.	1.2	65
10	Evaluation of <i>Escherichia coli</i> Cell Response to Antibiotic Treatment by Use of Raman Spectroscopy with Laser Tweezers. Journal of Clinical Microbiology, 2010, 48, 4287-4290.	1.8	57
11	Investigating drug induced changes in single, living lymphocytes based on Raman micro-spectroscopy. Analyst, The, 2014, 139, 2726-2733.	1.7	57
12	Monitoring dynamic protein expression in livingE. coli. Bacterial cells by laser tweezers Raman spectroscopy. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2007, 71A, 468-474.	1.1	56
13	Detection of doxorubicin-induced apoptosis of leukemic T-lymphocytes by laser tweezers Raman spectroscopy. Biomedical Optics Express, 2010, 1, 1138.	1.5	53
14	<scp>SERS</scp> analysis of selectively captured exosomes using an integrinâ€specific peptide ligand. Journal of Raman Spectroscopy, 2017, 48, 1771-1776.	1.2	46
15	Nanoparticles for live cell microscopy: A surface-enhanced Raman scattering perspective. Scientific Reports, 2017, 7, 4471.	1.6	43
16	Novel single-cell functional analysis of red blood cells using laser tweezers Raman spectroscopy: Application for sickle cell disease. Experimental Hematology, 2013, 41, 656-661.e1.	0.2	37
17	Fast Confocal Raman Imaging Using a 2-D Multifocal Array for Parallel Hyperspectral Detection. Analytical Chemistry, 2016, 88, 1281-1285.	3.2	36
18	A nanotweezer system for evanescent wave excited surface enhanced Raman spectroscopy (SERS) of single nanoparticles. Optics Express, 2015, 23, 6793.	1.7	35

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19	Microbial Transformation of Multiwalled Carbon Nanotubes by <i>Mycobacterium vanbaalenii</i> PYR-1. Environmental Science & Technology, 2017, 51, 2068-2076.	4.6	34
20	A Rapidly Modulated Multifocal Detection Scheme for Parallel Acquisition of Raman Spectra from a 2-D Focal Array. Analytical Chemistry, 2014, 86, 6604-6609.	3.2	29
21	Same-Single-Cell Analysis of Pacemaker-Specific Markers in Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Subtypes Classified by Electrophysiology. Stem Cells, 2016, 34, 2670-2680.	1.4	28
22	Parallel Analysis of Individual Biological Cells Using Multifocal Laser Tweezers Raman Spectroscopy. Applied Spectroscopy, 2010, 64, 1308-1310.	1.2	27
23	Raman spectroscopy of individual monocytes reveals that single-beam optical trapping of mononuclear cells occurs by their nucleus. Journal of Optics (United Kingdom), 2011, 13, 044021.	1.0	24
24	Power dependent oxygenation state transition of red blood cells in a single beam optical trap. Applied Physics Letters, 2011, 99, 043702.	1.5	22
25	Labelâ€free identification and characterization of human pluripotent stem cellâ€derived cardiomyocytes using second harmonic generation (SHG) microscopy. Journal of Biophotonics, 2012, 5, 57-66.	1.1	21
26	Human induced pluripotent stem cell line with genetically encoded fluorescent voltage indicator generated via CRISPR for action potential assessment post-cardiogenesis. Stem Cells, 2020, 38, 90-101.	1.4	20
27	Non-Linear Optical Flow Cytometry Using a Scanned, Bessel Beam Light-Sheet. Scientific Reports, 2015, 5, 10751.	1.6	19
28	Multimodal SHG-2PF Imaging of Microdomain Ca ²⁺ -Contraction Coupling in Live Cardiac Myocytes. Circulation Research, 2016, 118, e19-28.	2.0	19
29	NODAL inhibition promotes differentiation of pacemaker-like cardiomyocytes from human induced pluripotent stem cells. Stem Cell Research, 2020, 49, 102043.	0.3	19
30	Hyperspectral Raman microscopy can accurately differentiate single cells of different human thyroid nodules. Biomedical Optics Express, 2019, 10, 4411.	1.5	18
31	Dual-mode emission and transmission microscopy for virtual histochemistry using hematoxylin- and eosin-stained tissue sections. Biomedical Optics Express, 2019, 10, 6516.	1.5	18
32	Estimation of spectra sample size for characterizing single cells using microâ€Raman spectroscopy. Journal of Raman Spectroscopy, 2016, 47, 384-390.	1.2	17
33	Prestin amplifies cardiac motor functions. Cell Reports, 2021, 35, 109097.	2.9	17
34	Laser Tweezers Raman Microspectroscopy of Single Cells and Biological Particles. Methods in Molecular Biology, 2018, 1745, 219-257.	0.4	16
35	Characterisation of FXTAS related isolated intranuclear protein inclusions using laser tweezers Raman spectroscopy. Journal of Raman Spectroscopy, 2010, 41, 33-39.	1.2	12
36	Improving the imaging speed of 1064â€‰â€‰nm dispersive Raman microscopy with multifocal patterned detection. Optics Letters, 2017, 42, 37.	1.7	8

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37	Emerging investigator series: quantification of multiwall carbon nanotubes in plant tissues with spectroscopic analysis. Environmental Science: Nano, 2019, 6, 380-387.	2.2	7
38	An intrinsic, label-free signal for identifying stem cell-derived cardiomyocyte subtype. Stem Cells, 2020, 38, 390-394.	1.4	6
39	Raman-based cytopathology: an approach to improve diagnostic accuracy in medullary thyroid carcinoma. Biomedical Optics Express, 2020, 11, 6962.	1.5	5
40	Multifocal 1064â€‰â€‰nm Raman imaging of carbon nanotubes. Optics Letters, 2020, 45, 5132.	1.7	4
41	Diagnosing Hirschsprung disease by detecting intestinal ganglion cells using label-free hyperspectral microscopy. Scientific Reports, 2021, 11, 1398.	1.6	3
42	Surface-enhanced Raman scattering sensing platform for detecting amyloid-Î² peptide interaction with an aggregation inhibitor. Applied Optics, 2020, 59, 7490.	0.9	3
43	Making Heads or Tails of the Large Mammalian Sinoatrial Node Micro-Organization. Circulation: Arrhythmia and Electrophysiology, 2021, 14, CIRCEP121010465.	2.1	2
44	SHG-2PF Imaging of Local Ca2+ and Sub-Sarcomere Contraction in Live Cardiomyocytes. Biophysical Journal, 2016, 110, 432a.	0.2	1
45	Towards a Raman-based diagnostic approach for characterizing cytologically indeterminate thyroid nodules. , 2019, , .		0