

Katarzyna M Marzec

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

1,808
citations

331670

21
h-index

289244

40
g-index

69
all docs

69
docs citations

69
times ranked

2749
citing authors

#	ARTICLE	IF	CITATIONS
1	Raman spectroscopy of proteins: a review. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 1061-1076.	2.5	783
2	Visualization of the biochemical markers of atherosclerotic plaque with the use of Raman, IR and AFM. <i>Journal of Biophotonics</i> , 2014, 7, 744-756.	2.3	57
3	Pathological changes in the biochemical profile of the liver in atherosclerosis and diabetes assessed by Raman spectroscopy. <i>Analyst, The</i> , 2013, 138, 3885.	3.5	45
4	Parasites under the Spotlight: Applications of Vibrational Spectroscopy to Malaria Research. <i>Chemical Reviews</i> , 2018, 118, 5330-5358.	47.7	40
5	Raman spectroscopy as a sensitive probe of soft tissue composition – Imaging of cross-sections of various organs vs. single spectra of tissue homogenates. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 85, 117-127.	11.4	38
6	High-resolution Raman imaging reveals spatial location of heme oxidation sites in single red blood cells of dried smears. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 76-83.	2.5	37
7	An Analysis of Isolated and Intact RBC Membranes – A Comparison of a Semiquantitative Approach by Means of FTIR, Nano-FTIR, and Raman Spectroscopies. <i>Analytical Chemistry</i> , 2019, 91, 9867-9874.	6.5	34
8	Attenuated total reflection Fourier transform infrared (ATR-FTIR) spectroscopy of a single endothelial cell. <i>Analyst, The</i> , 2012, 137, 4135.	3.5	32
9	Red Blood Cells Polarize Green Laser Light Revealing Hemoglobin's Enhanced Non-Fundamental Raman Modes. <i>ChemPhysChem</i> , 2014, 15, 3963-3968.	2.1	28
10	Raman spectroscopic studies of vitamin A content in the liver: a biomarker of healthy liver. <i>Analyst, The</i> , 2015, 140, 2074-2079.	3.5	28
11	Label-free in vivo Raman microspectroscopic imaging of the macromolecular architecture of oocytes. <i>Scientific Reports</i> , 2017, 7, 8945.	3.3	28
12	Raman imaging of heme metabolism <i>in situ</i> in macrophages and Kupffer cells. <i>Analyst, The</i> , 2018, 143, 3489-3498.	3.5	28
13	FTIR, Raman and AFM characterization of the clinically valid biochemical parameters of the thrombi in acute ischemic stroke. <i>Scientific Reports</i> , 2019, 9, 15475.	3.3	27
14	Vapnikite Ca ₃ UO ₆ – a new double-perovskite mineral from pyrometamorphic lamite rocks of the Jabel Harmun, Palestinian Autonomy, Israel. <i>Mineralogical Magazine</i> , 2014, 78, 571-581.	1.4	25
15	IR and Raman imaging of murine brains from control and ApoE/LDLR [~] mice with advanced atherosclerosis. <i>Analyst, The</i> , 2016, 141, 5329-5338.	3.5	25
16	Comparative Matrix Isolation Infrared Spectroscopy Study of 1,3- and 1,4-Diene Monoterpenes (1-Phellandrene and 1-Terpinene). <i>Journal of Physical Chemistry A</i> , 2011, 115, 4342-4353.	2.5	24
17	Comparison of transfection and transmission FTIR imaging measurements performed on differentially fixed tissue sections. <i>Analyst, The</i> , 2015, 140, 2376-2382.	3.5	24
18	FT-IR- and Raman-based biochemical profiling of the early stage of pulmonary metastasis of breast cancer in mice. <i>Analyst, The</i> , 2018, 143, 2042-2050.	3.5	23

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19	Interaction between rhodanine and silver species on a nanocolloidal surface and in the solid state. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 543-552.	2.5	22
20	Effects of Low Carbohydrate High Protein (LCHP) diet on atherosclerotic plaque phenotype in ApoE/LDLR ^{-/-} mice: FT-IR and Raman imaging. <i>Scientific Reports</i> , 2015, 5, 14002.	3.3	22
21	Surface enhanced Raman spectroscopy of polycyclic aromatic hydrocarbons and molecular asphaltenes. <i>Chemical Physics Letters</i> , 2015, 620, 139-143.	2.6	22
22	Label-free Raman hyperspectral imaging analysis localizes the cyanogenic glucoside dhurrin to the cytoplasm in sorghum cells. <i>Scientific Reports</i> , 2018, 8, 2691.	3.3	22
23	Composition and (in)homogeneity of carotenoid crystals in carrot cells revealed by high resolution Raman imaging. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2015, 136, 1395-1400.	3.9	19
24	Label-free FTIR spectroscopy detects and visualizes the early stage of pulmonary micrometastasis seeded from breast carcinoma. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 3574-3584.	3.8	19
25	Conformational Space and Photochemistry of \pm -Terpinene. <i>Journal of Physical Chemistry A</i> , 2010, 114, 5526-5536.	2.5	18
26	Raman microimaging of murine lungs: insight into the vitamin A content. <i>Analyst</i> , The, 2015, 140, 2171-2177.	3.5	18
27	High and ultra-high definition of infrared spectral histopathology gives an insight into chemical environment of lung metastases in breast cancer. <i>Journal of Biophotonics</i> , 2019, 12, e201800345.	2.3	18
28	Vorlanite, (CaU ⁶⁺)O ₄ , from Jabel Harmun, Palestinian Autonomy, Israel. <i>American Mineralogist</i> , 2013, 98, 1938-1942.	1.9	17
29	Temporal relationship between systemic endothelial dysfunction and alterations in erythrocyte function in a murine model of chronic heart failure. <i>Cardiovascular Research</i> , 2022, 118, 2610-2624.	3.8	17
30	Substituent effect on structure and surface activity of N-methylpyridinium salts studied by FT-IR, FT-RS, SERS and DFT calculations. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 155-165.	2.5	15
31	Vascular diseases investigated ex vivo by using Raman, FT-IR and complementary methods. <i>Pharmacological Reports</i> , 2015, 67, 744-750.	3.3	15
32	Irreversible alterations in the hemoglobin structure affect oxygen binding in human packed red blood cells. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2020, 1867, 118803.	4.1	15
33	Trends in biomedical analysis of red blood cells – Raman spectroscopy against other spectroscopic, microscopic and classical techniques. <i>TrAC - Trends in Analytical Chemistry</i> , 2022, 146, 116481.	11.4	15
34	Nicotinamide and trigonelline studied with surface-enhanced FT-Raman spectroscopy. <i>Vibrational Spectroscopy</i> , 2012, 63, 469-476.	2.2	14
35	Resonance Raman in Vitro Detection and Differentiation of the Nitrite-Induced Hemoglobin Adducts in Functional Human Red Blood Cells. <i>Journal of Physical Chemistry B</i> , 2016, 120, 12249-12260.	2.6	14
36	Age-related and atherosclerosis-related erythropathy in ApoE/LDLR ^{-/-} mice. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165972.	3.8	14

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37	Probing the structure-function relationship of hemoglobin in living human red blood cells. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 239, 118530.	3.9	13
38	Structural characterization of rondorfite, calcium silica chlorine mineral containing magnesium in tetrahedral position [MgO ₄] ⁶⁺ , with the aid of the vibrational spectroscopies and fluorescence. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013, 101, 382-388.	3.9	12
39	Tracking Extracellular Matrix Remodeling in Lungs Induced by Breast Cancer Metastasis. Fourier Transform Infrared Spectroscopic Studies. <i>Molecules</i> , 2020, 25, 236.	3.8	12
40	Spectroscopy-based characterization of Hb-NO adducts in human red blood cells exposed to NO-donor and endothelium-derived NO. <i>Analyst, The</i> , 2018, 143, 4335-4346.	3.5	11
41	Temporal sequence of the human RBCs' vesiculation observed in nano-scale with application of AFM and complementary techniques. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2020, 28, 102221.	3.3	11
42	Trabzonite, Ca ₄ [Si ₃ O ₉ (OH)]OH: crystal structure, revised formula, new occurrence and relation to killalaite. <i>Mineralogical Magazine</i> , 2012, 76, 455-472.	1.4	9
43	Resonance Raman and UV-Visible Microscopy Reveals that Conditioning Red Blood Cells with Repeated Doses of Sodium Dithionite Increases Haemoglobin Oxygen Uptake. <i>ChemistrySelect</i> , 2017, 2, 3342-3346.	1.5	9
44	Spectroscopic Signature of Red Blood Cells in a D-Galactose-Induced Accelerated Aging Model. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2660.	4.1	9
45	Sex-dependent membranopathy in stored human red blood cells. <i>Haematologica</i> , 2021, 106, 2779-2782.	3.5	9
46	Towards Raman-Based Screening of Acute Lymphoblastic Leukemia-Type B (B-ALL) Subtypes. <i>Cancers</i> , 2021, 13, 5483.	3.7	9
47	Probing Heme Active Sites of Hemoglobin in Functional Red Blood Cells Using Resonance Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2021, 125, 3556-3565.	2.6	7
48	Multimodal detection and analysis of a new type of advanced Heinz body-like aggregate (AHBA) and cytoskeleton deformation in human RBCs. <i>Analyst, The</i> , 2020, 145, 1749-1758.	3.5	6
49	An Insight into the Stages of Ion Leakage during Red Blood Cell Storage. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2885.	4.1	6
50	Insight into coordination of dilead unit by molecules of 4-thiazolidinone-2-thione: Structural and computational studies. <i>Inorganica Chimica Acta</i> , 2011, 376, 581-589.	2.4	5
51	An impact of the ring substitution in nicorandil on its adsorption on silver nanoparticles. Surface-enhanced Raman spectroscopy studies. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 129, 624-631.	3.9	5
52	Different route of hydroxide incorporation and thermal stability of new type of water clathrate: X-ray single crystal and Raman investigation. <i>Scientific Reports</i> , 2017, 7, 9046.	3.3	5
53	Diversity among endothelial cell lines revealed by Raman and Fourier-transform infrared spectroscopic imaging. <i>Analyst, The</i> , 2018, 143, 4323-4334.	3.5	5
54	Comparison of standard and HD FT-IR with multimodal CARS/TPEF/SHG/FLIMS imaging in the detection of the early stage of pulmonary metastasis of murine breast cancer. <i>Analyst, The</i> , 2020, 145, 4982-4990.	3.5	5

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55	Resonance Raman spectroscopy of hemoglobin in red blood cells. , 2020, , 375-414.		4
56	Raman Imaging of Biomedical Samples. Springer Series in Surface Sciences, 2018, , 307-346.	0.3	3
57	Tauroursodeoxycholic Acid (TUDCA)â€™Lipid Interactions and Antioxidant Properties of TUDCA Studied in Model of Photoreceptor Membranes. Membranes, 2021, 11, 327.	3.0	3
58	High-Resolution Fourier Transform Infrared (FT-IR) Spectroscopic Imaging for Detection of Lung Structures and Cancer-Related Abnormalities in a Murine Model. Applied Spectroscopy, 2021, , 000370282110255.	2.2	2
59	Vibrational Microspectroscopy for Analysis of Atherosclerotic Arteries. Challenges and Advances in Computational Chemistry and Physics, 2014, , 505-535.	0.6	2
60	Vibrational imaging of proteins: changes in the tissues and cells in the lifestyle disease studies. , 2020, , 177-218.		1
61	Sex-Specific Differences of Adenosine Triphosphate Levels in Red Blood Cells Isolated From ApoE/LDLR Double-Deficient Mice. Frontiers in Physiology, 2022, 13, 839323.	2.8	1
62	Adsorption Of Rhodanine Derivatives On Silver And Gold Nanoparticle Surfaces. , 2010, , .		0
63	Potential-dependent Characterization of Bombesin Adsorbed on Roughened Ag, Au, and Cu Electrode Surfaces. , 2010, , .		0
64	Vibrational Studies on Conformational Preferences of Terpinene Isomers in the Equilibrium Gas and Condensed Phases. , 2010, , .		0
65	Vibrational Characterization of Binding Model of 4-thiazolidinone-2-thione with Pb[sub 2][sup 2+] species. , 2010, , .		0
66	Identification of Arbuscular Mycorrhizal Fungal (AMF) Spore Components. , 2010, , .		0
67	Fall in the ATP levels in the red blood cells in ApoE-LDLR double-deficient mice model prior to atherosclerosis development. European Heart Journal, 2021, 42, .	2.2	0