# List of Publications by Year in descending order



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|---|---|---|---|
| 63 papers | 2,827 citations | 81743 39 h-index | 174990 52 g-index |
| 63 all docs | 63 docs citations | 63 times ranked | 2027 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fiber-Enhanced Raman Multigas Spectroscopy: A Versatile Tool for Environmental Gas Sensing and Breath Analysis. Analytical Chemistry, 2014, 86, 5278-5285. | 3.2 | 152 |
| 2 | Fast and Highly Sensitive Fiber-Enhanced Raman Spectroscopic Monitoring of Molecular H<sub>2</sub> and CH<sub>4</sub> for Point-of-Care Diagnosis of Malabsorption Disorders in Exhaled Human Breath. Analytical Chemistry, 2015, 87, 982-988. | 3.2 | 125 |
| 3 | Calcite Biomineralization by Bacterial Isolates from the Recently Discovered Pristine Karstic Herrenberg Cave. Applied and Environmental Microbiology, 2012, 78, 1157-1167. | 1.4 | 112 |
| 4 | Raman acoustic levitation spectroscopy of red blood cells and Plasmodium falciparum trophozoites. Lab on A Chip, 2007, 7, 1125. | 3.1 | 96 |
| 5 | Highly Sensitive Broadband Raman Sensing of Antibiotics in Step-Index Hollow-Core Photonic Crystal Fibers. ACS Photonics, 2017, 4, 138-145. | 3.2 | 79 |
| 6 | Ultrasensitive Fiber Enhanced UV Resonance Raman Sensing of Drugs. Analytical Chemistry, 2013, 85, 6264-6271. | 3.2 | 75 |
| 7 | Fiber enhanced Raman gas spectroscopy. TrAC - Trends in Analytical Chemistry, 2018, 103, 230-238. | 5.8 | 74 |
| 8 | UV Raman spectroscopyâ€"A technique for biological and mineralogical in situ planetary studies. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 68, 1029-1035. | 2.0 | 70 |
| 9 | Enhanced Raman multigas sensing â€“ a novel tool for control and analysis of<sup>13</sup>CO<sub>2</sub>labeling experiments in environmental research. Analyst, The, 2014, 139, 3879. | 1.7 | 63 |
| 10 | Double antiresonant hollow core fiber â€“ guidance in the deep ultraviolet by modified tunneling leaky modes. Optics Express, 2014, 22, 19131. | 1.7 | 61 |
| 11 | Low-loss single-mode guidance in large-core antiresonant hollow-core fibers. Optics Letters, 2015, 40, 3432. | 1.7 | 59 |
| 12 | In Situ Localization and Structural Analysis of the Malaria Pigment Hemozoin. Journal of Physical Chemistry B, 2007, 111, 11047-11056. | 1.2 | 57 |
| 13 | Thiosulfate- and hydrogen-driven autotrophic denitrification by a microbial consortium enriched from groundwater of an oligotrophic limestone aquifer. FEMS Microbiology Ecology, 2018, 94, . | 1.3 | 56 |
| 14 | Investigation of Gas Exchange Processes in Peat Bog Ecosystems by Means of Innovative Raman Gas Spectroscopy. Analytical Chemistry, 2013, 85, 1295-1299. | 3.2 | 55 |
| 15 | Morphology-sensitive Raman modes of the malaria pigment hemozoin. Analyst, The, 2009, 134, 1126. | 1.7 | 52 |
| 16 | UV Raman ImagingA Promising Tool for Astrobiology:Â Comparative Raman Studies with Different Excitation Wavelengths on SNC Martian Meteorites. Analytical Chemistry, 2007, 79, 1101-1108. | 3.2 | 50 |
| 17 | In situUV Resonance Raman Micro-spectroscopic Localization of the Antimalarial Quinine in Cinchona Bark. Journal of Physical Chemistry B, 2007, 111, 4171-4177. | 1.2 | 50 |
| 18 | Online investigation of respiratory quotients in Pinus sylvestris and Picea abies during drought and shading by means of cavity-enhanced Raman multi-gas spectrometry. Analyst, The, 2015, 140, 4473-4481. | 1.7 | 50 |

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|---|---|---|---|
| 19 | Monitoring of gas composition in a laboratory biogas plant using cavity enhanced Raman spectroscopy. Analyst, The, 2018, 143, 1358-1366. | 1.7 | 49 |
| 20 | Fiber-Enhanced Raman Gas Spectroscopy for <sup>18</sup>Oâ€“<sup>13</sup>C-Labeling Experiments. Analytical Chemistry, 2019, 91, 7562-7569. | 3.2 | 49 |
| 21 | All-in-one: a versatile gas sensor based on fiber enhanced Raman spectroscopy for monitoring postharvest fruit conservation and ripening. Analyst, The, 2016, 141, 2023-2029. | 1.7 | 49 |
| 22 | Raman Spectroscopyâ€”An Innovative and Versatile Tool To Follow the Respirational Activity and Carbonate Biomineralization of Important Cave Bacteria. Analytical Chemistry, 2013, 85, 8708-8714. | 3.2 | 48 |
| 23 | Microbial respiration and natural attenuation of benzene contaminated soils investigated by cavity enhanced Raman multi-gas spectroscopy. Analyst, The, 2015, 140, 3143-3149. | 1.7 | 48 |
| 24 | Fiber enhanced Raman spectroscopic analysis as a novel method for diagnosis and monitoring of diseases related to hyperbilirubinemia and hyperbiliverdinemia. Analyst, The, 2016, 141, 6104-6115. | 1.7 | 48 |
| 25 | Characterization of fuel gases with fiber-enhanced Raman spectroscopy. Analytical and Bioanalytical Chemistry, 2019, 411, 7399-7408. | 1.9 | 48 |
| 26 | Structural analysis of the antimalarial drug halofantrine by means of Raman spectroscopy and density functional theory calculations. Journal of Biomedical Optics, 2010, 15, 041516. | 1.4 | 47 |
| 27 | Rapid monitoring of intermediate states and mass balance of nitrogen during denitrification by means of cavity enhanced Raman multi-gas sensing. Analytica Chimica Acta, 2015, 864, 39-47. | 2.6 | 47 |
| 28 | Fiber array based hyperspectral Raman imaging for chemical selective analysis of malaria-infected red blood cells. Analytica Chimica Acta, 2015, 894, 76-84. | 2.6 | 47 |
| 29 | Structural Analysis of the Anti-Malaria Active Agent Chloroquine under Physiological Conditions. Journal of Physical Chemistry B, 2007, 111, 1815-1822. | 1.2 | 46 |
| 30 | Ultrasensitivein situTracing of the Alkaloid Dioncophylline A in the Tropical LianaTriphyophyllum peltatumby Applying Deep-UV Resonance Raman Microscopy. Analytical Chemistry, 2007, 79, 986-993. | 3.2 | 46 |
| 31 | Fiber-enhanced Raman multi-gas spectroscopy: what is the potential of its application to breath analysis?. Bioanalysis, 2015, 7, 281-284. | 0.6 | 46 |
| 32 | Analysis of Fiber-Enhanced Raman Gas Sensing Based on Raman Chemical Imaging. Analytical Chemistry, 2017, 89, 12269-12275. | 3.2 | 46 |
| 33 | Raman Spectroscopy and Imaging in Bioanalytics. Analytical Chemistry, 2022, 94, 86-119. | 3.2 | 46 |
| 34 | In vivo localization and identification of the antiplasmodial alkaloid dioncophylline A in the tropical lianaTriphyophyllum peltatum by a combination of fluorescence, near infrared Fourier transform Raman microscopy, and density functional theory calculations. Biopolymers, 2006, 82, 295-300. | 1.2 | 45 |
| 35 | Multigas Leakage Correction in Static Environmental Chambers Using Sulfur Hexafluoride and Raman Spectroscopy. Analytical Chemistry, 2015, 87, 11137-11142. | 3.2 | 45 |
| 36 | Pinus sylvestris switches respiration substrates under shading but not during drought. New Phytologist, 2015, 207, 542-550. | 3.5 | 44 |

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|---|---|---|---|
| 37 | Ultrasensitive Detection of Antiseptic Antibiotics in Aqueous Media and Human Urine Using Deep UV Resonance Raman Spectroscopy. Analytical Chemistry, 2017, 89, 9997-10003. | 3.2 | 44 |
| 38 | Recent advances in nano-photonic techniques for pharmaceutical drug monitoring with emphasis on Raman spectroscopy. Nanophotonics, 2020, 9, 19-37. | 2.9 | 43 |
| 39 | Relationship between molecular structure and Raman spectra of quinolines. Journal of Molecular Structure, 2009, 924-926, 301-308. | 1.8 | 42 |
| 40 | Device for Raman Difference Spectroscopy. Analytical Chemistry, 2007, 79, 6159-6166. | 3.2 | 41 |
| 41 | Raman spectroscopic investigation of the antimalarial agent mefloquine. Analytical and Bioanalytical Chemistry, 2007, 387, 1749-1757. | 1.9 | 41 |
| 42 | Direct Raman Spectroscopic Measurements of Biological Nitrogen Fixation under Natural Conditions: An Analytical Approach for Studying Nitrogenase Activity. Analytical Chemistry, 2017, 89, 1117-1122. | 3.2 | 41 |
| 43 | Onsite cavity enhanced Raman spectrometry for the investigation of gas exchange processes in the Earth's critical zone. Analyst, The, 2017, 142, 3360-3369. | 1.7 | 41 |
| 44 | Raman spectroscopic investigation of 13CO2 labeling and leaf dark respiration of Fagus sylvatica L. (European beech). Analytical and Bioanalytical Chemistry, 2015, 407, 1813-1817. | 1.9 | 39 |
| 45 | Fiber-Enhanced Raman Sensing of Cefuroxime in Human Urine. Analytical Chemistry, 2018, 90, 13243-13248. | 3.2 | 38 |
| 46 | Nondestructive Three-Dimensional Analysis of Layered Polymer Structures with Chemical Imaging. Langmuir, 2010, 26, 19027-19032. | 1.6 | 37 |
| 47 | Fiber enhanced Raman sensing of levofloxacin by PCF bandgap-shifting into the visible range. Analytical Methods, 2018, 10, 586-592. | 1.3 | 36 |
| 48 | Hydrogen and C2â€“C6 Alkane Sensing in Complex Fuel Gas Mixtures with Fiber-Enhanced Raman Spectroscopy. Analytical Chemistry, 2021, 93, 10546-10552. | 3.2 | 34 |
| 49 | Liquid-Core Microstructured Polymer Optical Fiber as Fiber-Enhanced Raman Spectroscopy Probe for Glucose Sensing. Journal of Lightwave Technology, 2019, 37, 2981-2988. | 2.7 | 22 |
| 50 | Fiber-Array-Based Raman Hyperspectral Imaging for Simultaneous, Chemically-Selective Monitoring of Particle Size and Shape of Active Ingredients in Analgesic Tablets. Molecules, 2019, 24, 4381. | 1.7 | 22 |
| 51 | Counterfeit and Substandard Test of the Antimalarial Tablet RiametÂ® by Means of Raman Hyperspectral Multicomponent Analysis. Molecules, 2019, 24, 3229. | 1.7 | 21 |
| 52 | Fiber-Enhanced Raman Gas Spectroscopy for the Study of Microbial Methanogenesis. Analytical Chemistry, 2020, 92, 12564-12571. | 3.2 | 21 |
| 53 | Highly Sensitive Detection of the Antibiotic Ciprofloxacin by Means of Fiber Enhanced Raman Spectroscopy. Molecules, 2019, 24, 4512. | 1.7 | 20 |
| 54 | Vibrational spectroscopic characterization of arylisoquinolines by means of Raman spectroscopy and density functional theory calculations. Physical Chemistry Chemical Physics, 2017, 19, 29918-29926. | 1.3 | 17 |

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|---|---|---|---|
| 55 | Origins of modal loss of antiresonant hollow-core optical fibers in the ultraviolet. Optics Express, 2015, 23, 2557. | 1.7 | 13 |
| 56 | Multiscale spectroscopy using a monolithic liquid core waveguide with laterally attached fiber ports. Analytica Chimica Acta, 2015, 875, 1-6. | 2.6 | 9 |
| 57 | Parallelized Raman Difference Spectroscopy for the Investigation of Chemical Interactions. Analytical Chemistry, 2022, 94, 10346-10354. | 3.2 | 8 |
| 58 | Rapid Raman Spectroscopic Analysis of Stress Induced Degradation of the Pharmaceutical Drug Tetracycline. Molecules, 2020, 25, 1866. | 1.7 | 6 |
| 59 | Grasshopper herbivory immediately affects element cycling but not export rates in an Nâ€limited grassland system. Ecosphere, 2021, 12, e03449. | 1.0 | 6 |
| 60 | Activity and electron donor preference of two denitrifying bacterial strains identified by Raman gas spectroscopy. Analytical and Bioanalytical Chemistry, 2022, 414, 601-611. | 1.9 | 3 |
| 61 | Detection of gas molecules by means of spectrometric and spectroscopic methods. , 2020, , 251-294. | | 1 |
| 62 | Response to Comment on Hydrogen and C2â€“C6 Alkane Sensing in Complex Fuel Gas Mixtures with Fiber-Enhanced Raman Spectroscopy. Analytical Chemistry, 2021, 93, 16285-16287. | 3.2 | 1 |
| 63 | OH diffusion effects at preparation of antiresonant hollow core fibers. , 2019, , . | | 0 |