# Karl S Booksh

List of Publications by Year
in descending order

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|---|---|---|---|
| 107 papers | 9,041 citations | 134610 34 h-index | 45040 94 g-index |
| 107 all docs | 107 docs citations | 107 times ranked | 9596 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Visualization of confusion matrices with network graphs. Journal of Chemometrics, 2023, 37, . | 0.7 | 3 |
| 2 | Characterization of Green Paints in Ming and Qianlong Dynastiesâ€™ Linâ€™xi Pavilion by Complimentary Techniques. Molecules, 2021, 26, 266. | 1.7 | 1 |
| 3 | Polymorph identification in green Chinese architectural paints using Raman imaging and multivariate curve resolution. Journal of Chemometrics, 2021, 35, . | 0.7 | 2 |
| 4 | Authentication of edible oils using Fourier transform infrared spectroscopy and pattern recognition methods. Chemometrics and Intelligent Laboratory Systems, 2021, 210, 104251. | 1.8 | 16 |
| 5 | Comparison of Spectroscopic Techniques for Determining the Peroxide Value of 19 Classes of Naturally Aged, Plant-Based Edible Oils. Applied Spectroscopy, 2021, 75, 000370282199450. | 1.2 | 6 |
| 6 | Improving Prediction of Peroxide Value of Edible Oils Using Regularized Regression Models. Molecules, 2021, 26, 7281. | 1.7 | 8 |
| 7 | Incorporating brand variability into classification of edible oils by Raman spectroscopy. Journal of Chemometrics, 2020, 34, e3173. | 0.7 | 12 |
| 8 | Differentiation of Edible Oils by Type Using Raman Spectroscopy and Pattern Recognition Methods. Applied Spectroscopy, 2020, 74, 645-654. | 1.2 | 14 |
| 9 | Raman hyperspectral imaging with multivariate analysis for investigating enzyme immobilization. Analyst, The, 2020, 145, 7571-7581. | 1.7 | 19 |
| 10 | EXPRESS: Comparison of Spectroscopic Techniques for Determining the Peroxide Value of 19 Classes of Naturally Aged, Plant-Based Edible Oils. Applied Spectroscopy, 2020, , 000370282097470. | 1.2 | 1 |
| 11 | A novel multivariate curve resolution-alternating least squares (MCR-ALS) methodology for application in hyperspectral Raman imaging analysis. Analyst, The, 2019, 144, 5425-5438. | 1.7 | 27 |
| 12 | Assessing utility of handheld laser induced breakdown spectroscopy as a means ofDalbergiaspeciation. Analyst, The, 2019, 144, 5117-5126. | 1.7 | 9 |
| 13 | Multi-Analytical Study of Copper-Based Historic Pigments and their Alteration Products. Applied Spectroscopy, 2019, 73, 000370281985660. | 1.2 | 6 |
| 14 | Multivariate Curve Resolutionâ€“Alternating Least Squares (MCR-ALS) with Raman Imaging Applied to Lunar Meteorites. Applied Spectroscopy, 2018, 72, 404-419. | 1.2 | 20 |
| 15 | Academic pipeline for scientists with disabilities. MRS Bulletin, 2018, 43, 625-632. | 1.7 | 10 |
| 16 | Mechanisms of Cellular Internalization of Quantum DotÂ® Conjugated Bone Formation Mimetic Peptide CK2.3. Nanomaterials, 2018, 8, 513. | 1.9 | 9 |
| 17 | Evaluating Single Layer Graphene Micropatterns Induced by Ti:Sa Laser Irradiation. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800334. | 0.8 | 1 |
| 18 | Improved Graphene-Oxide-Derived Carbon Sponge for Effective Hydrocarbon Absorption and Câ€“C Coupling Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 11793-11800. | 3.2 | 5 |

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|---|---|---|---|
| 19 | Raman microspectroscopic mapping with multivariate curve resolution-alternating least squares (MCR-ALS) of the high-pressure, Î±-PbO2-structured polymorph of titanium dioxide, TiO2-II. Chemical Data Collections, 2017, 9-10, 35-43. | 1.1 | 10 |
| 20 | Raman Microspectroscopic Mapping with Multivariate Curve Resolutionâ€“Alternating Least Squares (MCR-ALS) Applied to the High-Pressure Polymorph of Titanium Dioxide, TiO<sub>2</sub>-II. Applied Spectroscopy, 2017, 71, 1816-1833. | 1.2 | 18 |
| 21 | Formation of [Cu<sub>2</sub>O<sub>2</sub>]<sup>2+</sup> and [Cu<sub>2</sub>O]<sup>2+</sup> toward Câ€“H Bond Activation in Cu-SSZ-13 and Cu-SSZ-39. ACS Catalysis, 2017, 7, 4291-4303. | 5.5 | 195 |
| 22 | Spatial and spectral resolution of carbonaceous material from hematite (Î±-Fe<sub>2</sub>O<sub>3</sub>) using multivariate curve resolution-alternating least squares (MCR-ALS) with Raman microspectroscopic mapping: implications for the search for life on Mars. Analyst, The, 2017, 142, 3140-3156. | 1.7 | 20 |
| 23 | A High Performance Stretchable Asymmetric Fiberâ€Shaped Supercapacitor with a Coreâ€Sheath Helical Structure. Advanced Energy Materials, 2017, 7, 1600976. | 10.2 | 242 |
| 24 | Why Are There so Few Doctorates with Disabilities in Chemistry? Thoughts and Reflections. ACS Symposium Series, 2017, , 195-203. | 0.5 | 0 |
| 25 | Characterization of copper-based pigment preparation and alteration products. MRS Advances, 2017, 2, 3973-3981. | 0.5 | 4 |
| 26 | Omnidirectionally Stretchable High-Performance Supercapacitor Based on Isotropic Buckled Carbon Nanotube Films. ACS Nano, 2016, 10, 5204-5211. | 7.3 | 220 |
| 27 | Shock-metamorphosed rutile grains containing the high-pressure polymorph TiO<sub>2</sub>-II in four Neoarchean spherule layers. Geology, 2016, 44, 775-778. | 2.0 | 18 |
| 28 | Spatial strain variation of graphene films for stretchable electrodes. Carbon, 2015, 93, 620-624. | 5.4 | 32 |
| 29 | Electrografted Diazonium Salt Layers for Antifouling on the Surface of Surface Plasmon Resonance Biosensors. Analytical Chemistry, 2015, 87, 2488-2494. | 3.2 | 28 |
| 30 | Adaptive Regression via Subspace Elimination. ACS Symposium Series, 2015, , 241-256. | 0.5 | 0 |
| 31 | Sensing with Prism-Based Near-Infrared Surface Plasmon Resonance Spectroscopy on Nanohole Array Platforms. Analytical Chemistry, 2014, 86, 3355-3364. | 3.2 | 24 |
| 32 | Position Dependent Plasmonic Interaction Between a Single Nanoparticle and a Nanohole Array. Plasmonics, 2014, 9, 1229-1237. | 1.8 | 4 |
| 33 | Investigation of in Situ Surface Plasmon Resonance Spectroscopy for Environmental Monitoring in and around Deep-Sea Hydrothermal Vents. Analytical Letters, 2013, 46, 1607-1617. | 1.0 | 18 |
| 34 | Adsorbateâ€“Metal Bond Effect on Empirical Determination of Surface Plasmon Penetration Depth. Analytical Chemistry, 2013, 85, 4875-4883. | 3.2 | 6 |
| 35 | Characterization of electrografted 4-aminophenylalanine layers for low non-specific binding of proteins. New Journal of Chemistry, 2012, 36, 963. | 1.4 | 11 |
| 36 | Development and Investigation of a Dual-Pad In-Channel Referencing Surface Plasmon Resonance Sensor. Analytical Chemistry, 2012, 84, 7891-7898. | 3.2 | 13 |

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|---|---|---|---|
| 37 | DC Magnetron Sputtered Polyaniline-HCl Thin Films for Chemical Sensing Applications. Analytical Chemistry, 2012, 84, 5770-5777. | 3.2 | 22 |
| 38 | Fructoseâ€“Waterâ€“Dimethylsulfoxide Interactions by Vibrational Spectroscopy and Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2012, 116, 11274-11283. | 1.2 | 49 |
| 39 | Design of 1,25 Dihydroxyvitamin D3 Coupled Quantum Dots, a Novel Imaging Tool. Journal of Nanoscience and Nanotechnology, 2012, 12, 2185-2191. | 0.9 | 13 |
| 40 | Synthesis of L-Cysteine Stabilized Silver Nanoparticles and Their Effects on Cell Viability. Advanced Science Letters, 2012, 6, 26-33. | 0.2 | 5 |
| 41 | Investigation of a fiber optic surface plasmon spectroscopy in conjunction with conductivity as an in situ method for simultaneously monitoring changes in dissolved organic carbon and salinity in coastal waters. Analyst, The, 2011, 136, 4350. | 1.7 | 10 |
| 42 | Coaxial fiber-optic chemical-sensing excitationâ€“emission matrix fluorometer. Optics Letters, 2011, 36, 355. | 1.7 | 3 |
| 43 | Discourse on the utilization of polyaniline coatings for surface plasmon resonance sensing of ammonia vapor. Talanta, 2011, 85, 1369-1375. | 2.9 | 28 |
| 44 | Glucose detection with surface plasmon resonance spectroscopy and molecularly imprinted hydrogel coatings. Talanta, 2011, 86, 133-141. | 2.9 | 34 |
| 45 | Evaluation of polymer coatings for ammonia vapor sensing with surface plasmon resonance spectroscopy. Sensors and Actuators B: Chemical, 2010, 147, 255-262. | 4.0 | 23 |
| 46 | Novel electrode materials based on ion beam induced deposition of platinum carbon composites. Electrochimica Acta, 2010, 55, 5725-5732. | 2.6 | 23 |
| 47 | Characterization of a Variable Angle Reflection Fourier Transform Infrared Accessory Modified for Surface Plasmon Resonance Spectroscopy. Applied Spectroscopy, 2010, 64, 1181-1186. | 1.2 | 10 |
| 48 | A Novel Refractometer Architecture. , 2008, , . | | 1 |
| 49 | Quantitative Measurement of Cardiac Markers in Undiluted Serum. Analytical Chemistry, 2007, 79, 612-619. | 3.2 | 104 |
| 50 | System-on-Chip Circuit Architecture for Eliminating Interferents in Surface Plasmon Resonance Sensing Systems. IEEE Sensors Journal, 2007, 7, 1400-1412. | 2.4 | 1 |
| 51 | Improved sensitivity and stability of amperometric enzyme microbiosensors by covalent attachment to gold electrodes. Biosensors and Bioelectronics, 2007, 23, 355-361. | 5.3 | 13 |
| 52 | Excitation-emission matrix fluorescence spectroscopy in conjunction with multiway analysis for PAH detection in complex matrices. Analyst, The, 2006, 131, 1308. | 1.7 | 62 |
| 53 | Characterization and Quantitation of a Tertiary Mixture of Salts by Raman Spectroscopy in Simulated Hydrothermal Vent Fluid. Applied Spectroscopy, 2006, 60, 773-780. | 1.2 | 14 |
| 54 | Fiber-Optic Surface Plasmon Resonance Sensors in the Near-Infrared Spectral Region. Applied Spectroscopy, 2006, 60, 1241-1246. | 1.2 | 32 |

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|---|---|---|---|
| 55 | Determining salinity using a multimode fiber optic surface plasmon resonance dip-probe. Talanta, 2006, 68, 504-515. | 2.9 | 76 |
| 56 | Reduction of nonspecific protein binding on surface plasmon resonance biosensors. Analytical and Bioanalytical Chemistry, 2006, 386, 1951-1959. | 1.9 | 66 |
| 57 | Qualitative analysis of excess dielectric properties of binary mixtures, ternary mixtures and mixing dynamics measurement using surface plasmon resonance. Thermochimica Acta, 2005, 432, 83-90. | 1.2 | 4 |
| 58 | First order Rayleigh scatter as a separate component in the decomposition of fluorescence landscapes. Analytica Chimica Acta, 2005, 537, 349-358. | 2.6 | 73 |
| 59 | Rapid multivariate curve resolution applied to near real-time process monitoring with HPLC/Raman data. Analytica Chimica Acta, 2005, 544, 71-81. | 2.6 | 8 |
| 60 | Fiber-optic surface plasmon resonance for vapor phase analyses. Analyst, The, 2005, 130, 838. | 1.7 | 26 |
| 61 | Three- and four-way parallel factor (PARAFAC) analysis of photochemically induced excitationâ€“emission kinetic fluorescence spectra. Analyst, The, 2005, 130, 85-93. | 1.7 | 51 |
| 62 | Nondestructive Monitoring of the Photochromic State of Dithienylethene Monolayers by Surface Plasmon Resonance. Langmuir, 2005, 21, 7413-7420. | 1.6 | 18 |
| 63 | Photocatalytic Degradation-Excitationâ"Emission Matrix Fluorescence for Increasing the Selectivity of Polycyclic Aromatic Hydrocarbon Analyses. Analytical Chemistry, 2005, 77, 7679-7686. | 3.2 | 32 |
| 64 | Tapered fiber optic surface plasmon resonance sensor for analyses of vapor and liquid phases. Optics Letters, 2005, 30, 2218. | 1.7 | 139 |
| 65 | Investigation of dual-channel fiber-optic surface plasmon resonance sensing for biological applications. Optics Letters, 2005, 30, 2988. | 1.7 | 98 |
| 66 | Single-crystal sapphire-fiber optic sensors based on surface plasmon resonance spectroscopy for in situ monitoring. Talanta, 2005, 67, 908-917. | 2.9 | 29 |
| 67 | Biocompatible polymers for antibody support on gold surfaces. Talanta, 2005, 67, 918-925. | 2.9 | 71 |
| 68 | Quantification of Cytokines Involved in Wound Healing Using Surface Plasmon Resonance. Analytical Chemistry, 2005, 77, 7016-7023. | 3.2 | 102 |
| 69 | Phase sensitive enhancement for biochemical detection using rotating paramagnetic particle chains. Journal of Applied Physics, 2004, 96, 6831-6838. | 1.1 | 19 |
| 70 | Manufacture of robust surface plasmon resonance fiber optic based dip-probes. Sensors and Actuators B: Chemical, 2004, 100, 439-449. | 4.0 | 59 |
| 71 | Calibration of microhotplate conductometric gas sensors by non-linear multivariate regression methods. Sensors and Actuators B: Chemical, 2004, 101, 284-294. | 4.0 | 22 |
| 72 | Solid-phase synthesis and photochromic switching of a polymeric photochromic layer on a gold surface. Optical Materials, 2004, 27, 435-439. | 1.7 | 22 |

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|---|---|---|---|
| 73 | Calibration of fiber optic based surface plasmon resonance sensors in aqueous systems. Analytica Chimica Acta, 2004, 515, 291-302. | 2.6 | 47 |
| 74 | Recent advancements in chemometrics for smart sensors. Analyst, The, 2004, 129, 492. | 1.7 | 16 |
| 75 | Development of an in situ fiber optic Raman system to monitor hydrothermal vents. Analyst, The, 2004, 129, 602. | 1.7 | 23 |
| 76 | Monitoring of recombinant survival motor neuron protein using fiber-optic surface plasmon resonance. Analyst, The, 2004, 129, 855. | 1.7 | 26 |
| 77 | Preparation of analyte-sensitive polymeric supports for biochemical sensors. Talanta, 2004, 64, 716-725. | 2.9 | 39 |
| 78 | Influence of Wavelength-Shifted Calibration Spectra on Multivariate Calibration Models. Applied Spectroscopy, 2004, 58, 624-635. | 1.2 | 13 |
| 79 | Chemometric Correction of Drift Effects in Optical Spectra. Applied Spectroscopy, 2004, 58, 683-692. | 1.2 | 15 |
| 80 | Quantifying catecholamines using multi-way kinetic modelling. Analytica Chimica Acta, 2003, 475, 137-150. | 2.6 | 61 |
| 81 | Fluorescence Excitationâ^'Emission Matrix Regional Integration to Quantify Spectra for Dissolved Organic Matter. Environmental Science & Technology, 2003, 37, 5701-5710. | 4.6 | 4,542 |
| 82 | Application of PARAFAC for calibration with excitation-emission matrix fluorescence spectra of three classes of environmental pollutants. Journal of Chemometrics, 2000, 14, 171-185. | 0.7 | 83 |
| 83 | Mitigation of Rayleigh and Raman Spectral Interferences in Multiway Calibration of Excitationâ^'Emission Matrix Fluorescence Spectra. Analytical Chemistry, 2000, 72, 718-725. | 3.2 | 93 |
| 84 | Performance comparison between high and low resolution spectrophotometers used in a white light surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 1999, 54, 80-88. | 4.0 | 38 |
| 85 | Excitation-emission matrix fluorescence based determination of carbamate pesticides and polycyclic aromatic hydrocarbons. Analytica Chimica Acta, 1999, 397, 61-72. | 2.6 | 135 |
| 86 | Tuning Dynamic Range and Sensitivity of White-Light, Multimode, Fiber-Optic Surface Plasmon Resonance Sensors. Analytical Chemistry, 1999, 71, 5116-5122. | 3.2 | 104 |
| 87 | Monitoring Anhydride and Acid Conversion in Supercritical/Hydrothermal Water by in Situ Fiber-Optic Raman Spectroscopy. Analytical Chemistry, 1998, 70, 332-339. | 3.2 | 61 |
| 88 | Calibration of Surface Plasmon Resonance Refractometers Using Locally Weighted Parametric Regression. Analytical Chemistry, 1997, 69, 1844-1851. | 3.2 | 49 |
| 89 | Precise Determination of Percent Cure of Epoxide Polymers and Composites via Fiber-Optic Raman Spectroscopy and Multivariate Analysis. Applied Spectroscopy, 1997, 51, 247-252. | 1.2 | 36 |
| 90 | Calibration method choice by comparison of model basis functions to the theoretical instrumental response function. Analytica Chimica Acta, 1997, 348, 1-9. | 2.6 | 27 |

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|---|---|---|---|
| 91 | Single-Measurement Excitation/Emission Matrix Spectrofluorometer for Determination of Hydrocarbons in Ocean Water. 1. Instrumentation and Background Correction. Analytical Chemistry, 1996, 68, 3534-3538. | 3.2 | 81 |
| 92 | Single-Measurement Excitation/Emission Matrix Spectrofluorometer for Determination of Hydrocarbons in Ocean Water. 2. Calibration and Quantitation of Naphthalene and Styrene. Analytical Chemistry, 1996, 68, 3539-3544. | 3.2 | 113 |
| 93 | Polymer Film Thickness Determination with a High-Precision Scanning Reflectometer. Applied Spectroscopy, 1996, 50, 119-125. | 1.2 | 9 |
| 94 | Mathematical Alignment of Wavelength-Shifted Optical Spectra for Qualitative and Quantitative Analysis. Applied Spectroscopy, 1996, 50, 139-147. | 1.2 | 24 |
| 95 | Novel In situ Probe for Monitoring Polymer Curing. Applied Spectroscopy, 1996, 50, 382-387. | 1.2 | 44 |
| 96 | Multivariate Raman Imaging of Simulated and â€œReal Worldâ€•Glass-Reinforced Composites. Applied Spectroscopy, 1996, 50, 552-557. | 1.2 | 36 |
| 97 | A second-order standard addition method with application to calibration of a kinetics-spectroscopic sensor for quantitation of trichloroethylene. Journal of Chemometrics, 1995, 9, 263-282. | 0.7 | 52 |
| 98 | Chemometric Study of the Fluorescence of Dental Calculus by Trilinear Decomposition. Applied Spectroscopy, 1995, 49, 1317-1325. | 1.2 | 15 |
| 99 | Multivariate Fluorescence Imaging of Gel on Nylon 66 Production Pack Screens. Applied Spectroscopy, 1995, 49, 1545-1549. | 1.2 | 10 |
| 100 | Error analysis of the generalized rank annihilation method. Journal of Chemometrics, 1994, 8, 45-63. | 0.7 | 27 |
| 101 | Comments on the DATa ANalysis (DATAN) algorithm and rank annihilation factor analysis for the analysis of correlated spectral data. Journal of Chemometrics, 1994, 8, 287-292. | 0.7 | 24 |
| 102 | Extension of Trilinear Decomposition Method with an Application to the Flow Probe Sensor. Analytical Chemistry, 1994, 66, 2561-2569. | 3.2 | 152 |
| 103 | Theory of Analytical Chemistry. Analytical Chemistry, 1994, 66, 782A-791A. | 3.2 | 573 |
| 104 | A Second-Order Fiber Optic Heavy Metal Sensor Employing Second-Order Tensorial Calibration. Analytical Chemistry, 1994, 66, 2552-2560. | 3.2 | 44 |
| 105 | Multicomponent Determination of Chlorinated Hydrocarbons Using a Reaction-Based Chemical Sensor. 1. Multivariate Calibration of Fujiwara Reaction Products. Analytical Chemistry, 1994, 66, 3328-3336. | 3.2 | 31 |
| 106 | Multiple Interacting Factors Determine Precision in Derivative Ultraviolet Spectrometry. Applied Spectroscopy, 1992, 46, 704-706. | 1.2 | 1 |
| 107 | Monte Carlo simulations for predicting the precision of results and for optimizing data acquisition schedules. Analytica Chimica Acta, 1990, 239, 53-59. | 2.6 | 3 |