

Jaroslav Katrlák

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

1,890
citations

331670

21
h-index

254184

43
g-index

63
all docs

63
docs citations

63
times ranked

2454
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Optical biosensors. <i>Essays in Biochemistry</i> , 2016, 60, 91-100. | 4.7 | 568 |
| 2 | Glycan and lectin microarrays for glycomics and medicinal applications. <i>Medicinal Research Reviews</i> , 2010, 30, 394-418. | 10.5 | 94 |
| 3 | Label-free detection of glycoproteins by the lectin biosensor down to attomolar level using gold nanoparticles. <i>Talanta</i> , 2013, 108, 11-18. | 5.5 | 86 |
| 4 | Amperometric biosensors based on solid binding matrices applied in food quality monitoring. <i>Biosensors and Bioelectronics</i> , 1998, 13, 911-923. | 10.1 | 83 |
| 5 | Electrochemical lectin based biosensors as a label-free tool in glycomics. <i>Mikrochimica Acta</i> , 2013, 180, 1-13. | 5.0 | 65 |
| 6 | DNA aptamer-based sandwich microfluidic assays for dual quantification and multi-glycan profiling of cancer biomarkers. <i>Biosensors and Bioelectronics</i> , 2016, 79, 313-319. | 10.1 | 61 |
| 7 | Analytical techniques for multiplex analysis of protein biomarkers. <i>Expert Review of Proteomics</i> , 2020, 17, 257-273. | 3.0 | 60 |
| 8 | Biosensors for L-malate and L-lactate based on solid binding matrix. <i>Analytica Chimica Acta</i> , 1999, 379, 193-200. | 5.4 | 59 |
| 9 | Composite Transducers for Amperometric Biosensors. <i>The Glucose Sensor. Analytical Chemistry</i> , 1997, 69, 2086-2090. | 6.5 | 58 |
| 10 | An ultrasensitive impedimetric glycan biosensor with controlled glycan density for detection of lectins and influenza hemagglutinins. <i>Chemical Communications</i> , 2015, 51, 7474-7477. | 4.1 | 55 |
| 11 | A novel microbial biosensor based on cells of <i>Gluconobacter oxydans</i> for the selective determination of 1,3-propanediol in the presence of glycerol and its application to bioprocess monitoring. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 388, 287-295. | 3.7 | 51 |
| 12 | Glycan and lectin biosensors. <i>Essays in Biochemistry</i> , 2016, 60, 37-47. | 4.7 | 51 |
| 13 | Immobilization in biotechnology and biorecognition: from macro- to nanoscale systems. <i>Chemical Papers</i> , 2012, 66, . | 2.2 | 43 |
| 14 | Amperometric biosensors based on two different enzyme systems and their use for glycerol determination in samples from biotechnological fermentation process. <i>Analytica Chimica Acta</i> , 2006, 566, 11-18. | 5.4 | 34 |
| 15 | Ethanol <i>Gluconobacter</i> biosensor designed for flow injection analysis. <i>Sensors and Actuators B: Chemical</i> , 2009, 138, 581-586. | 7.8 | 32 |
| 16 | Light-switchable Polymer from Cationic to Zwitterionic Form: Synthesis, Characterization, and Interactions with DNA and Bacterial Cells. <i>Macromolecular Rapid Communications</i> , 2013, 34, 635-639. | 3.9 | 32 |
| 17 | Nitric oxide determination by amperometric carbon fiber microelectrode. <i>Bioelectrochemistry</i> , 2002, 56, 73-76. | 4.6 | 31 |
| 18 | Composite alcohol biosensors based on solid binding matrix. <i>Biosensors and Bioelectronics</i> , 1998, 13, 181-191. | 10.1 | 29 |

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|----|---|------|-----------|
| 19 | Lectin-based lateral flow assay: proof-of-concept. <i>Analyst, The</i> , 2016, 141, 6444-6448. | 3.5 | 25 |
| 20 | Mediator type of glucose microbial biosensor based on <i>Aspergillus niger</i> . <i>Analytica Chimica Acta</i> , 1997, 356, 217-224. | 5.4 | 22 |
| 21 | Whole-cell <i>Gluconobacter oxydans</i> biosensor for 2-phenylethanol biooxidation monitoring. <i>Analytica Chimica Acta</i> , 2015, 854, 140-144. | 5.4 | 22 |
| 22 | Glycoprofiling as a novel tool in serological assays of systemic sclerosis: A comparative study with three bioanalytical methods. <i>Analytica Chimica Acta</i> , 2015, 853, 555-562. | 5.4 | 22 |
| 23 | Whole cell amperometric biosensor based on <i>Aspergillus niger</i> for determination of glucose with enhanced upper linearity limit. <i>Analytica Chimica Acta</i> , 1996, 331, 225-232. | 5.4 | 18 |
| 24 | Comparison of three distinct ELLA protocols for determination of apparent affinity constants between Con A and glycoproteins. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012, 94, 163-169. | 5.0 | 18 |
| 25 | Surface plasmon resonance application in prostate cancer biomarker research. <i>Chemical Papers</i> , 2015, 69, . | 2.2 | 18 |
| 26 | Lectin-based protein microarray analysis of differences in serum alpha ₂ -macroglobulin glycosylation between patients with colorectal cancer and persons without cancer. <i>Biotechnology and Applied Biochemistry</i> , 2016, 63, 457-464. | 3.1 | 18 |
| 27 | Structural and functional changes of fibrinogen due to aging. <i>International Journal of Biological Macromolecules</i> , 2018, 108, 1028-1034. | 7.5 | 16 |
| 28 | Off-line FIA monitoring of d-sorbitol consumption during l-sorbose production using a sorbitol biosensor. <i>Analytica Chimica Acta</i> , 2009, 644, 68-71. | 5.4 | 15 |
| 29 | Binding of d-mannose-containing glycoproteins to d-mannose-specific lectins studied by surface plasmon resonance. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 382, 198-202. | 4.7 | 14 |
| 30 | Methods and Current Trends in Determination of Neuraminidase Activity and Evaluation of Neuraminidase Inhibitors. <i>Critical Reviews in Analytical Chemistry</i> , 2019, 49, 350-367. | 3.5 | 14 |
| 31 | Influence of media composition on recombinant monoclonal IgA1 glycosylation analysed by lectin-based protein microarray and MALDI-MS. <i>Journal of Biotechnology</i> , 2020, 314-315, 34-40. | 3.8 | 14 |
| 32 | The expression of P-gp in leukemia cells is associated with cross-resistance to protein N-glycosylation inhibitor tunicamycin. <i>General Physiology and Biophysics</i> , 2016, 35, 497-510. | 0.9 | 12 |
| 33 | A lectin-based cell microarray approach to analyze the mammalian granulosa cell surface glycosylation profile. <i>Glycoconjugate Journal</i> , 2016, 33, 717-724. | 2.7 | 12 |
| 34 | Sweet Strategies in Prostate Cancer Biomarker Research: Focus on a Prostate Specific Antigen. <i>BioNanoScience</i> , 2018, 8, 690-700. | 3.5 | 12 |
| 35 | Microbial monooxygenase amperometric biosensor for monitoring of Baeyer-Villiger biotransformation. <i>Biosensors and Bioelectronics</i> , 2013, 50, 235-238. | 10.1 | 11 |
| 36 | Determining the binding affinities of prostate-specific antigen to lectins: SPR and microarray approaches. <i>Proteomics</i> , 2016, 16, 3096-3104. | 2.2 | 11 |

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|----|--|------|-----------|
| 37 | Analysis of changes in the glycan composition of serum, cytosol and membrane glycoprotein biomarkers of colorectal cancer using a lectin-based protein microarray. <i>Analytical Methods</i> , 2017, 9, 2660-2666. | 2.7 | 11 |
| 38 | Structural changes of fibrinogen as a consequence of cirrhosis. <i>Thrombosis Research</i> , 2018, 166, 43-49. | 1.7 | 11 |
| 39 | Development of enzyme flow calorimeter system for monitoring of microbial glycerol conversion. <i>Applied Microbiology and Biotechnology</i> , 2006, 72, 1170-1175. | 3.6 | 9 |
| 40 | A filtration probe-free on-line monitoring of glycerol during fermentation by a biosensor device. <i>Enzyme and Microbial Technology</i> , 2008, 42, 434-439. | 3.2 | 9 |
| 41 | Glycoanalysis of the placental membrane glycoproteins throughout placental development. <i>Mechanisms of Ageing and Development</i> , 2019, 183, 111151. | 4.6 | 8 |
| 42 | Fibrinogen Fucosylation as a Prognostic Marker of End-Stage Renal Disease in Patients on Peritoneal Dialysis. <i>Biomolecules</i> , 2020, 10, 1165. | 4.0 | 8 |
| 43 | Sensitive glycoprofiling of insulin-like growth factor receptors isolated from colon tissue of patients with colorectal carcinoma using lectin-based protein microarray. <i>International Journal of Biological Macromolecules</i> , 2020, 144, 932-937. | 7.5 | 7 |
| 44 | Study of interactions between blood plasma proteins and poly(butyl cyanoacrylate) drug nanocarriers by surface plasmon resonance. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 510, 309-316. | 4.7 | 6 |
| 45 | Changes Due to Ageing in the Glycan Structure of Alpha-2-Macroglobulin and Its Reactivity with Ligands. <i>Protein Journal</i> , 2019, 38, 23-29. | 1.6 | 6 |
| 46 | Diagnostic Potential of Transferrin Glycoforms – A Lectin-Based Protein Microarray Approach. <i>Proteomics - Clinical Applications</i> , 2019, 13, 1800185. | 1.6 | 6 |
| 47 | Features, modulation and analysis of glycosylation patterns of therapeutic recombinant immunoglobulin A. <i>Biotechnology and Genetic Engineering Reviews</i> , 2022, 38, 247-269. | 6.2 | 4 |
| 48 | Screening for the best detergent for the isolation of placental membrane proteins. <i>International Journal of Biological Macromolecules</i> , 2017, 102, 431-437. | 7.5 | 3 |
| 49 | Lectin-based assay for the determination of the inhibition activity of small molecule inhibitors of neuraminidases. <i>Journal of Biotechnology</i> , 2021, 325, 65-72. | 3.8 | 3 |
| 50 | SPR biosensor chip based on mannan isolated from <i>Candida dubliniensis</i> yeasts applied in immunization effectiveness testing. <i>Sensors and Actuators B: Chemical</i> , 2022, 350, 130883. | 7.8 | 3 |
| 51 | Hypotension as a symptom of autonomic neuropathy in patients with advanced malignancies. <i>Biomedical Papers of the Medical Faculty of the University Palacký&#x0301;, Olomouc, Czechoslovakia</i> , 2019, 163, 331-334. | 0.6 | 2 |
| 52 | Lectin-Based Protein Microarray for the Glycan Analysis of Colorectal Cancer Biomarkers: The Insulin-Like Growth Factor System. <i>Methods in Molecular Biology</i> , 2022, 2460, 207-222. | 0.9 | 2 |
| 53 | Electrochemical Aptasensors for Parkinson's Disease Biomarkers Detection. <i>Current Medicinal Chemistry</i> , 2022, 29, 5795-5814. | 2.4 | 2 |
| 54 | Nanotechnology gets into winemaking. <i>Nano Today</i> , 2007, 2, 48. | 11.9 | 1 |

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|----|---|-----|-----------|
| 55 | Electrical SPR biosensor with thermal annealed graphene oxide: Concept of highly sensitive biomolecule detection. <i>Biosensors and Bioelectronics</i> : X, 2022, 11, 100152. | 1.7 | 1 |
| 56 | Biosensors and biochips for study of glycan structures changes in colorectal cancer. <i>Current Opinion in Biotechnology</i> , 2013, 24, S65. | 6.6 | 0 |
| 57 | Lectin-based biosensing for medicine and biotechnology. <i>Journal of Biotechnology</i> , 2019, 305, S2. | 3.8 | 0 |