RÃ³bert E GyurcsÃ¡nyi

List of Publications by Year
in descending order

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113	4,742	87401	124990
papers	citations	40 h-index	64 g-index

117	117	117	4240
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In situsilver nanoparticle coating of virions for quantification at single virus level. Nanoscale, 2022, 14, 2296-2303.	2.8	8
2	Peptide epitope-imprinted polymer microarrays for selective protein recognition. Application for SARS-CoV-2 RBD protein. Chemical Science, 2022, 13, 1263-1269.	3.7	28
3	TEMPO-Functionalized Carbon Nanotubes for Solid-Contact Ion-Selective Electrodes with Largely Improved Potential Reproducibility and Stability. Analytical Chemistry, 2022, 94, 8249-8257.	3.2	9
4	Solid-contact ion-selective electrodes based on ferrocene-functionalized multi-walled carbon nanotubes. Electrochemistry Communications, 2021, 123, 106903.	2.3	14
5	Insights in electrosynthesis, target binding, and stability of peptide-imprinted polymer nanofilms. Electrochimica Acta, 2021, 381, 138236.	2.6	11
6	â€œOut of Pocketâ€•Protein Bindingâ€”A Dilemma of Epitope Imprinted Polymers Revealed for Human Hemoglobin. Chemosensors, 2021, 9, 128.	1.8	13
7	3D-printed manifold integrating solid contact ion-selective electrodes for multiplexed ion concentration measurements in urine. Talanta, 2021, 232, 122491.	2.9	9
8	Spiegelmer-Based Sandwich Assay for Cardiac Troponin I Detection. International Journal of Molecular Sciences, 2020, 21, 4963.	1.8	5
9	Aptamers against Immunoglobulins: Design, Selection and Bioanalytical Applications. International Journal of Molecular Sciences, 2020, 21, 5748.	1.8	25
10	Multiplexed redox gating measurements with a microelectrospotter. Towards electrochemical readout of molecularly imprinted polymer microarrays. Electrochemistry Communications, 2020, 119, 106812.	2.3	5
11	Lipophilic Multiâ€walled Carbon Nanotubeâ€based Solid Contact Potassium Ionâ€selective Electrodes with Reproducible Standard Potentials. A Comparative Study. Electroanalysis, 2020, 32, 867-873.	1.5	28
12	Finding the Optimal Surface Density of Aptamer Monolayers by SPR Imaging Detectionâ€based Aptamer Microarrays. Electroanalysis, 2020, 32, 851-858.	1.5	20
13	Bioâ€Electrosynthesis of Vectorially Imprinted Polymer Nanofilms for Cytochrome P450cam. ChemElectroChem, 2019, 6, 1818-1823.	1.7	8
14	Potential Reproducibility of Potassium-Selective Electrodes Having Perfluorinated Alkanoate Side Chain Functionalized Poly(3,4-ethylenedioxytiophene) as a Hydrophobic Solid Contact. Analytical Chemistry, 2019, 91, 9111-9118.	3.2	51
15	Resistive Pulse Sensing as a Highâ€Resolution Nanoparticle Sizing Method: A Comparative Study. Particle and Particle Systems Characterization, 2019, 36, 1800543.	1.2	1
16	Molecularly imprinted polymer-based electrochemical sensors for biopolymers. Current Opinion in Electrochemistry, 2019, 14, 53-59.	2.5	67
17	Multiplexed assessment of the surface density of DNA probes on DNA microarrays by surface plasmon resonance imaging. Analytica Chimica Acta, 2019, 1047, 131-138.	2.6	8
18	Ionâ€Selective Electrodes Based on Hydrophilic Ionophoreâ€Modified Nanopores. Angewandte Chemie, 2018, 130, 4842-4845.	1.6	16

#	ARTICLE	IF	CITATIONS
19	Ionâ€Selective Electrodes Based on Hydrophilic Ionophoreâ€Modified Nanopores. Angewandte Chemie - International Edition, 2018, 57, 4752-4755.	7.2	41
20	Electrosynthesized MIPs for transferrin: Plastibodies or nano-filters?. Biosensors and Bioelectronics, 2018, 105, 29-35.	5.3	38
21	Selective counting and sizing of single virus particles using fluorescent aptamer-based nanoparticle tracking analysis. Nanoscale, 2018, 10, 13942-13948.	2.8	24
22	Aptamers for respiratory syncytial virus detection. Scientific Reports, 2017, 7, 42794.	1.6	34
23	Multivalent foldamer-based affinity assay for selective recognition of AÎ² oligomers. Analytica Chimica Acta, 2017, 960, 131-137.	2.6	7
24	Electrosynthesized molecularly imprinted polyscopoletin nanofilms for human serum albumin detection. Analytica Chimica Acta, 2017, 977, 1-9.	2.6	73
25	Pre-Polarized Hydrophobic Conducting Polymer Solid-Contact Ion-Selective Electrodes with Improved Potential Reproducibility. Analytical Chemistry, 2017, 89, 2598-2605.	3.2	68
26	Potentiometric sensing of nucleic acids using chemically modified nanopores. Nanoscale, 2017, 9, 739-747.	2.8	20
27	Spiegelmers as potential receptors for cTnI diagnostics. Analytical Methods, 2017, 9, 5091-5093.	1.3	2
28	MIPs and Aptamers for Recognition of Proteins in Biomimetic Sensing. Biosensors, 2016, 6, 35.	2.3	53
29	Nanoparticle displacement assay with electrochemical nanopore-based sensors. Electrochemistry Communications, 2016, 71, 13-17.	2.3	7
30	Ionâ€selective Electrodes with 3D Nanostructured Conducting Polymer Solid Contact. Electroanalysis, 2016, 28, 778-786.	1.5	35
31	Electropolymerized hydrophobic polyazulene as solid-contacts in potassium-selective electrodes. Analyst, The, 2016, 141, 2990-2997.	1.7	40
32	Electrosynthesized molecularly imprinted polymers for protein recognition. TrAC - Trends in Analytical Chemistry, 2016, 79, 179-190.	5.8	138
33	Biomimetic Sensors: Vectorially Imprinted Hybrid Nanofilm for Acetylcholinesterase Recognition (Adv. Funct. Mater. 32/2015). Advanced Functional Materials, 2015, 25, 5078-5078.	7.8	0
34	Nanopipet-Based Resistive Pulse Sensing to Follow Alterations in the Size and Concentration of Nanoparticles During Membrane Filtration. Electroanalysis, 2015, 27, 595-601.	1.5	5
35	Vectorially Imprinted Hybrid Nanofilm for Acetylcholinesterase Recognition. Advanced Functional Materials, 2015, 25, 5178-5183.	7.8	51
36	Microelectrospotting as a new method for electrosynthesis of surface-imprinted polymer microarrays for protein recognition. Biosensors and Bioelectronics, 2015, 73, 123-129.	5.3	53

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37	A method based on light scattering to estimate the concentration of virus particles without the need for virus particle standards. MethodsX, 2015, 2, 91-99.	0.7	46
38	Aptasensors for viral diagnostics. TrAC - Trends in Analytical Chemistry, 2015, 74, 58-67.	5.8	45
39	Reliable microspotting methodology for peptide-nucleic acid layers with high hybridization efficiency on gold SPR imaging chips. Analytical Methods, 2015, 7, 6077-6082.	1.3	17
40	Fluidically and electrically integrated solid state nanopore arrays for biochemical sensing. , 2014, , .		0
41	Is less more? Lessons from aptamer selection strategies. Journal of Pharmaceutical and Biomedical Analysis, 2014, 101, 58-65.	1.4	48
42	Electrochemical sensing with nanopores: A mini review. Electrochemistry Communications, 2014, 43, 55-59.	2.3	51
43	Electrochemical Detection of miRNAs. Electroanalysis, 2014, 26, 1224-1235.	1.5	40
44	Calibration-Less Sizing and Quantitation of Polymeric Nanoparticles and Viruses with Quartz Nanopipets. Analytical Chemistry, 2014, 86, 4688-4697.	3.2	56
45	A rational approach for generating cardiac troponin I selective Spiegelmers. Chemical Communications, 2014, 50, 6801-6804.	2.2	16
46	Enhanced electron transfer in composite films of reduced graphene oxide and poly(N-methylaniline). Carbon, 2013, 63, 588-592.	5.4	6
47	Electrochemical template synthesis of protein-imprinted magnetic polymer microrods. Journal of Materials Science, 2013, 48, 5209-5218.	1.7	27
48	Nanosphere Lithography as a Versatile Method to Generate Surfaceâ€Imprinted Polymer Films for Selective Protein Recognition. Advanced Functional Materials, 2013, 23, 4703-4709.	7.8	17
49	Homogeneous assay for evaluation of aptamerâ€“protein interaction. Analyst, The, 2012, 137, 3929.	1.7	14
50	Effects of the Focused Ion Beam Parameters on Nanopore Milling in Solid State Membranes. Procedia Engineering, 2012, 47, 684-687.	1.2	5
51	Integrated Microfluidic Environment for Solid-state Nanopore Sensors. Procedia Engineering, 2012, 47, 13-16.	1.2	3
52	Nanosensors lost in space. A random walk study of single molecule detection with single-nanopore sensors. Analytica Chimica Acta, 2012, 722, 119-126.	2.6	23
53	Nernstâ€“Planck/Poisson model for the potential response of permselective gold nanopores. Electrochimica Acta, 2012, 73, 70-77.	2.6	23
54	Towards Protein Assays on Paper Platforms with Potentiometric Detection. Electroanalysis, 2012, 24, 146-152.	1.5	39

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55	MÃ¡trafÃ¼redâ€² 11, International Conference on Electrochemical Sensors. Electroanalysis, 2012, 24, 11-12.	1.5	0
56	Hyphenated FT-IR-Attenuated Total Reflection and Electrochemical Impedance Spectroscopy Technique to Study the Water Uptake and Potential Stability of Polymeric Solid-Contact Ion-Selective Electrodes. Analytical Chemistry, 2011, 83, 4902-4908.	3.2	60
57	Characterisation of Solid-State Gold Nanopores Applicable for Biochemical Sensing. Procedia Engineering, 2011, 25, 904-907.	1.2	0
58	Selective Artificial Receptors Based on Micropatterned Surfaceâ€Imprinted Polymers for Labelâ€Free Detection of Proteins by SPR Imaging. Advanced Functional Materials, 2011, 21, 591-597.	7.8	68
59	Influence of Poly(3â€octylthiophene) on the Water Transport Through Methacrylicâ€Acrylic Based Polymer Membranes. Electroanalysis, 2011, 23, 1769-1772.	1.5	32
60	The Water Uptake of Plasticized Poly(vinyl chloride) Solidâ€Contact Calciumâ€Selective Electrodes. Electroanalysis, 2011, 23, 2156-2163.	1.5	40
61	Solidâ€State Ion Channels for Potentiometric Sensing. Angewandte Chemie - International Edition, 2011, 50, 1656-1659.	7.2	72
62	Interpretation of chronopotentiometric transients of ion-selective membranes with two transition times. Journal of Electroanalytical Chemistry, 2010, 638, 254-261.	1.9	13
63	Selection and versatile application of virusâ€specific aptamers. FASEB Journal, 2010, 24, 4187-4195.	0.2	49
64	Polyaniline Nanoparticle-Based Solid-Contact Silicone Rubber Ion-Selective Electrodes for Ultratrace Measurements. Analytical Chemistry, 2010, 82, 9425-9432.	3.2	75
65	Ionophoreâ€“gold nanoparticle conjugates for Ag+-selective sensors with nanomolar detection limit. Chemical Communications, 2010, 46, 607-609.	2.2	55
66	Aptamer-based biochips for label-free detection of plant virus coat proteins by SPR imaging. Analyst, The, 2010, 135, 918.	1.7	90
67	Electrosynthesized Surfaceâ€Imprinted Conducting Polymer Microrods for Selective Protein Recognition. Advanced Materials, 2009, 21, 2271-2275.	11.1	135
68	FTIRâ€ATR Study of Water Uptake and Diffusion Through Ionâ€Selective Membranes Based on Plasticized Poly(vinyl chloride). Electroanalysis, 2009, 21, 1914-1922.	1.5	75
69	Microfabricated Amperometric Cells for Multicomponent Analysis. Electroanalysis, 2009, 21, 1944-1954.	1.5	7
70	Assessment of Ionâ€Ionophore Complex Diffusion Coefficients in Solvent Polymeric Membranes. Electroanalysis, 2009, 21, 1923-1930.	1.5	13
71	International Conference on Electrochemical Sensors MÃ¡trafÃ¼red 2008. Electroanalysis, 2009, 21, 1883-1886.	1.5	0
72	Quality control criteria for solid-contact, solvent polymeric membrane ion-selective electrodes. Journal of Solid State Electrochemistry, 2009, 13, 51-68.	1.2	273

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73	Chronopotentiometric method for the assessment of ionophore diffusion coefficients in solvent polymeric membranes. Journal of Solid State Electrochemistry, 2009, 13, 171-179.	1.2	24
74	FTIR-ATR Study of Water Uptake and Diffusion through Ion-Selective Membranes Based on Poly(acrylates) and Silicone Rubber. Analytical Chemistry, 2009, 81, 5925-5934.	3.2	64
75	Limitations of Current Polarization for Lowering the Detection Limit of Potentiometric Polymeric Membrane Sensors. Analytical Chemistry, 2009, 81, 3592-3599.	3.2	32
76	Potentiometric enzyme immunoassay using miniaturized anion-selective electrodes for detection. Analyst, The, 2009, 134, 1601.	1.7	31
77	Mathematical Model of Currentâ€Polarized Ionophoreâ€Based Ionâ€Selective Membranes: Large Current Chronopotentiometry. Electroanalysis, 2008, 20, 259-269.	1.5	30
78	Electrosynthesized molecularly imprinted polypyrrole films for enantioselective recognition of l-aspartic acid. Electrochimica Acta, 2008, 53, 2729-2736.	2.6	123
79	Chemically-modified nanopores for sensing. TrAC - Trends in Analytical Chemistry, 2008, 27, 627-639.	5.8	182
80	Electrochemical methods for the determination of the diffusion coefficient of ionophores and ionophoreâ€“ion complexes in plasticized PVC membranes. Analyst, The, 2008, 133, 635.	1.7	44
81	Hybridization-Modulated Ion Fluxes through Peptide-Nucleic-Acid- Functionalized Gold Nanotubes. A New Approach to Quantitative Label-Free DNA Analysis. Nano Letters, 2007, 7, 1609-1612.	4.5	92
82	How To Assess the Limits of Ion-Selective Electrodes:â€‰ Method for the Determination of the Ultimate Span, Response Range, and Selectivity Coefficients of Neutral Carrier-Based Cation Selective Electrodes. Analytical Chemistry, 2006, 78, 942-950.	3.2	28
83	Multispectral imaging of ion transport in neutral carrier-based cation-selective membranes. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2006, 69A, 792-804.	1.1	19
84	Simple, Single Step Potential Difference Measurement for the Determination of the Ultimate Detection Limit of Ion Selective Electrodes. Electroanalysis, 2006, 18, 1245-1253.	1.5	9
85	Microcavity Based Solid-Contact Ion-Selective Microelectrodes. Electroanalysis, 2006, 18, 1372-1378.	1.5	57
86	Synthesis and Characterization of a Novel, Colored Lipophilic Additive for Spectral Imaging the Transport in Ionophore Based Ion-Selective Membranes. Electroanalysis, 2006, 18, 1396-1407.	1.5	19
87	Spectroelectrochemical Microscopy:â€‰ Spatially Resolved Spectroelectrochemistry of Carrier-Based Ion-Selective Membranes. Analytical Chemistry, 2005, 77, 2132-2139.	3.2	36
88	Synthesis and characterization of inherently conducting polymers by using Scanning Electrochemical Microscopy and Electrochemical Quartz Crystal Microbalance. Synthetic Metals, 2005, 152, 133-136.	2.1	24
89	Synthesis and characterization of covalently immobilized bis-crown ether based potassium ionophore. Analyst, The, 2005, 130, 63-70.	1.7	38
90	A polypyrrole-based solid-contact Pb2+-selective PVC-membrane electrode with a nanomolar detection limit. Analytical and Bioanalytical Chemistry, 2004, 380, 7-14.	1.9	117

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91	Properties of mixed alkanethiolâ€“dendrimer layers and their applications in biosensing. Bioelectrochemistry, 2004, 63, 285-289.	2.4	35
92	Chemical imaging of biological systems with the scanning electrochemical microscope. Bioelectrochemistry, 2004, 63, 207-215.	2.4	63
93	Microfabricated ISEs: critical comparison of inherently conducting polymer and hydrogel based inner contacts. Talanta, 2004, 63, 89-99.	2.9	115
94	Influence of Incorporated Lipophilic Particles on Ion Fluxes Through Polymeric Ion-Selective Membranes. Electroanalysis, 2003, 15, 375-382.	1.5	40
95	Biorecognition-modulated ion fluxes through functionalized gold nanotubules as a novel label-free biosensing approach. Chemical Communications, 2003, , 2560-2561.	2.2	50
96	Spectroscopic Method for the Determination of the Ionic Site Concentration in Solvent Polymeric Membranes and Membrane Plasticizers. Analytical Chemistry, 2002, 74, 4060-4068.	3.2	44
97	Amperometric microcells for alkaline phosphatase assay. Analyst, The, 2002, 127, 235-240.	1.7	75
98	Development and study of an amperometric biosensor for the in vitro measurement of low concentration of putrescine in blood. Journal of Proteomics, 2002, 53, 165-175.	2.4	31
99	A Chronoamperometric Method To Estimate Changes in the Membrane Composition of Ion-Selective Membranes. Analytical Chemistry, 2001, 73, 4599-4606.	3.2	38
100	Picomolar Detection Limits with Current-Polarized Pb2+Ion-Selective Membranes. Analytical Chemistry, 2001, 73, 4249-4253.	3.2	131
101	Direct Evidence of Ionic Fluxes Across Ion-Selective Membranes:â€‰ A Scanning Electrochemical Microscopic and Potentiometric Study. Analytical Chemistry, 2001, 73, 2104-2111.	3.2	119
102	A glance into the bulk of solvent polymeric pH membranes. Pure and Applied Chemistry, 2001, 73, 17-22.	0.9	20
103	Analytical performance characteristics of thin and thick film amperometric microcells. Fresenius' Journal of Analytical Chemistry, 2001, 369, 286-294.	1.5	15
104	Comparative investigation of electrochemical cholinesterase biosensors for pesticide determination. Analytica Chimica Acta, 2000, 404, 55-65.	2.6	82
105	Screen-printed amperometric microcell for proline iminopeptidase enzyme activity assay. Biosensors and Bioelectronics, 2000, 15, 265-272.	5.3	11
106	Automatic Target Location Strategy-A Novel Approach in Scanning Electrochemical Microscopy. Electroanalysis, 1999, 11, 349-355.	1.5	18
107	Tailored Transport Through Ion-Selective Membranes for Improved Detection Limits and Selectivity Coefficients. Electroanalysis, 1999, 11, 695-702.	1.5	141
108	Tailored Transport Through Ion-Selective Membranes for Improved Detection Limits and Selectivity Coefficients. , 1999, 11, 695.		4

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109	Study of the determination of acetylcholine after enzymatic hydrolysis by triangle programmed coulometric flow titration. Talanta, 1998, 47, 1021-1031.	2.9	3
110	Investigation of Styreneâ"Methacrylic Acid Block Copolymer Micelle Doped Polypyrrole Films by Scanning Electrochemical Microscopy. Journal of Physical Chemistry B, 1998, 102, 9934-9939.	1.2	11
111	Novel polypyrrole based all-solid-state potassium-selective microelectrodes. Analyst, The, 1998, 123, 1339-1344.	1.7	101
112	Thin- and thick-film structures for miniature biomedical sensors. , 0, , .		0
113	Membrane-Based Chemical Sensors and Biosensors. , 0, , 3999-4020.		0