

Frieder W Scheller

List of Publications by Year in descending order

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93
papers

3,730
citations

101535

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133244

59
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97
all docs

97
docs citations

97
times ranked

3245
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Research and development in biosensors. <i>Current Opinion in Biotechnology</i> , 2001, 12, 35-40. | 6.6 | 221 |
| 2 | Zeptomole-Detecting Biosensor for Alkaline Phosphatase in an Electrochemical Immunoassay for 2,4-Dichlorophenoxyacetic acid. <i>Analytical Chemistry</i> , 1996, 68, 2453-2458. | 6.5 | 195 |
| 3 | Cytochrome P450 biosensors—a review. <i>Biosensors and Bioelectronics</i> , 2005, 20, 2408-2423. | 10.1 | 188 |
| 4 | Direct Electron Transfer of Cytochrome P450 2B4 at Electrodes Modified with Nonionic Detergent and Colloidal Clay Nanoparticles. <i>Analytical Chemistry</i> , 2004, 76, 6046-6052. | 6.5 | 169 |
| 5 | Thirty years of haemoglobin electrochemistry. <i>Advances in Colloid and Interface Science</i> , 2005, 116, 111-120. | 14.7 | 156 |
| 6 | A Superoxide Sensor Based on a Multilayer Cytochrome c Electrode. <i>Analytical Chemistry</i> , 2004, 76, 4665-4671. | 6.5 | 150 |
| 7 | Electrosynthesized molecularly imprinted polymers for protein recognition. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 79, 179-190. | 11.4 | 138 |
| 8 | Electroactive Cytochrome c Multilayers within a Polyelectrolyte Assembly. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 4357-4360. | 13.8 | 124 |
| 9 | Biosensors: trends and commercialization. <i>Biosensors</i> , 1985, 1, 135-160. | 1.7 | 116 |
| 10 | Protein Rebinding to a Surface-Confined Imprint. <i>Advanced Functional Materials</i> , 2012, 22, 5231-5237. | 14.9 | 112 |
| 11 | Clay-Bridged Electron Transfer between Cytochrome P450cam and Electrode. <i>Biochemical and Biophysical Research Communications</i> , 2000, 268, 740-744. | 2.1 | 82 |
| 12 | Superoxide sensor based on hemin modified electrode. <i>Sensors and Actuators B: Chemical</i> , 2000, 70, 115-120. | 7.8 | 80 |
| 13 | Ferroceneboronic acid-based amperometric biosensor for glycosylated hemoglobin. <i>Sensors and Actuators B: Chemical</i> , 2006, 113, 623-629. | 7.8 | 73 |
| 14 | Electrosynthesized molecularly imprinted polyscopoletin nanofilms for human serum albumin detection. <i>Analytica Chimica Acta</i> , 2017, 977, 1-9. | 5.4 | 73 |
| 15 | New enzyme sensors for morphine and codeine based on morphine dehydrogenase and laccase. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 364, 179-183. | 1.5 | 67 |
| 16 | Molecularly imprinted polymer-based electrochemical sensors for biopolymers. <i>Current Opinion in Electrochemistry</i> , 2019, 14, 53-59. | 4.8 | 67 |
| 17 | Enhancing biosensor performance using multienzyme systems. <i>Trends in Biotechnology</i> , 1993, 11, 255-262. | 9.3 | 62 |
| 18 | Bioelectrocatalysis by redox enzymes at modified electrodes. <i>Reviews in Molecular Biotechnology</i> , 2002, 82, 411-424. | 2.8 | 62 |

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|----|--|------|-----------|
| 19 | Hybrid Material for Protein Sensing Based on Electrosynthesized MIP on a Mannose Terminated Self-Assembled Monolayer. <i>Advanced Functional Materials</i> , 2014, 24, 2233-2239. | 14.9 | 61 |
| 20 | A Bifunctional Molecularly Imprinted Polymer (MIP): Analysis of Binding and Catalysis by a Thermistor. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 6986-6990. | 13.8 | 58 |
| 21 | Electrochemical displacement sensor based on ferrocene boronic acid tracer and immobilized glycan for saccharide binding proteins and E. coli. <i>Biosensors and Bioelectronics</i> , 2014, 58, 1-8. | 10.1 | 58 |
| 22 | Microelectrospotting as a new method for electrosynthesis of surface-imprinted polymer microarrays for protein recognition. <i>Biosensors and Bioelectronics</i> , 2015, 73, 123-129. | 10.1 | 53 |
| 23 | MIPs and Aptamers for Recognition of Proteins in Biomimetic Sensing. <i>Biosensors</i> , 2016, 6, 35. | 4.7 | 53 |
| 24 | How Reliable Is the Electrochemical Readout of MIP Sensors?. <i>Sensors</i> , 2020, 20, 2677. | 3.8 | 52 |
| 25 | Vectorially Imprinted Hybrid Nanofilm for Acetylcholinesterase Recognition. <i>Advanced Functional Materials</i> , 2015, 25, 5178-5183. | 14.9 | 51 |
| 26 | A self-assembled cytochrome c/xanthine oxidase multilayer arrangement on gold. <i>Electrochimica Acta</i> , 2007, 53, 1107-1113. | 5.2 | 47 |
| 27 | The First Electrochemical MIP Sensor for Tamoxifen. <i>Sensors</i> , 2014, 14, 7647-7654. | 3.8 | 47 |
| 28 | Development of fructosyl valine binding polymers by covalent imprinting. <i>Biosensors and Bioelectronics</i> , 2007, 22, 3318-3325. | 10.1 | 44 |
| 29 | Electrocatalytically functional multilayer assembly of sulfite oxidase and cytochrome c. <i>Soft Matter</i> , 2008, 4, 972. | 2.7 | 43 |
| 30 | Thermometric MIP sensor for fructosyl valine. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1195-1199. | 10.1 | 42 |
| 31 | Modulation of direct electron transfer of cytochrome c by use of a molecularly imprinted thin film. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 6437-6444. | 3.7 | 41 |
| 32 | Simple and robust: The claims of protein sensing by molecularly imprinted polymers. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129369. | 7.8 | 41 |
| 33 | Electrosynthesized MIPs for transferrin: Plastibodies or nano-filters?. <i>Biosensors and Bioelectronics</i> , 2018, 105, 29-35. | 10.1 | 38 |
| 34 | Molecularly Imprinted Electropolymer for a Hexameric Heme Protein with Direct Electron Transfer and Peroxide Electrocatalysis. <i>Sensors</i> , 2016, 16, 272. | 3.8 | 37 |
| 35 | Integrated Approaches Toward High-Affinity Artificial Protein Binders Obtained via Computationally Simulated Epitopes for Protein Recognition. <i>Advanced Functional Materials</i> , 2019, 29, 1807332. | 14.9 | 36 |
| 36 | Electrochemical MIP Sensor for Butyrylcholinesterase. <i>Polymers</i> , 2019, 11, 1970. | 4.5 | 36 |

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|----|--|------|-----------|
| 37 | Development of molecularly imprinted polymers for the binding of nitrofurantoin. <i>Biosensors and Bioelectronics</i> , 2009, 25, 82-87. | 10.1 | 35 |
| 38 | Thermometric Sensing of Nitrofurantoin by Noncovalently Imprinted Polymers Containing Two Complementary Functional Monomers. <i>Analytical Chemistry</i> , 2011, 83, 7704-7711. | 6.5 | 35 |
| 39 | Au-Pt nanoparticles based molecularly imprinted nanosensor for electrochemical detection of the lipopeptide antibiotic drug Daptomycin. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128285. | 7.8 | 35 |
| 40 | Spectroelectrochemistry of cytochrome P450cam. <i>Biochemical and Biophysical Research Communications</i> , 2004, 314, 810-816. | 2.1 | 31 |
| 41 | Coupling Biocatalysis with Molecular Imprinting in a Biomimetic Sensor. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11521-11525. | 13.8 | 30 |
| 42 | Electrochemical MIP-Sensors for Drugs. <i>Current Medicinal Chemistry</i> , 2018, 25, 4007-4019. | 2.4 | 29 |
| 43 | Peptide epitope-imprinted polymer microarrays for selective protein recognition. Application for SARS-CoV-2 RBD protein. <i>Chemical Science</i> , 2022, 13, 1263-1269. | 7.4 | 28 |
| 44 | COUPLING OF IMMUNOASSAYS WITH ENZYMATIC RECYCLING ELECTRODES. <i>Analytical Letters</i> , 2001, 34, 1233-1245. | 1.8 | 27 |
| 45 | Sensors based on cytochrome P450 and CYP mimicking systems. <i>Electrochimica Acta</i> , 2013, 110, 63-72. | 5.2 | 27 |
| 46 | Size Exclusion Redox-Labeled Immunoassay (SERI): A New Format for Homogeneous Amperometric Creatinine Determination. <i>Electroanalysis</i> , 2000, 12, 1318-1321. | 2.9 | 25 |
| 47 | An Esterolytic Imprinted Polymer Prepared via a Silica-Supported Transition State Analogue. <i>Chemistry of Materials</i> , 2004, 16, 2745-2749. | 6.7 | 25 |
| 48 | Molecular LEGO by domain-imprinting of cytochrome P450 BM3. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 164, 240-246. | 5.0 | 24 |
| 49 | Quinoprotein glucose dehydrogenase modified thick-film electrodes for the amperometric detection of phenolic compounds in flow injection analysis. <i>Fresenius' Journal of Analytical Chemistry</i> , 2001, 369, 145-152. | 1.5 | 23 |
| 50 | High sensitive competitive immunodetection of 2,4-dichlorophenoxyacetic acid using enzymatic amplification with electrochemical detection. <i>Analytical and Bioanalytical Chemistry</i> , 1996, 354, 861-865. | 3.7 | 22 |
| 51 | A novel multienzyme electrode for the determination of citrate. <i>Journal of Chemical Technology and Biotechnology</i> , 1995, 63, 337-344. | 3.2 | 20 |
| 52 | Cascade-like exponential substrate amplification in enzyme sensors. <i>Biosensors and Bioelectronics</i> , 1995, 10, 169-180. | 10.1 | 19 |
| 53 | Direct electrocatalytic determination of dissolved peroxidases. <i>Analytica Chimica Acta</i> , 1996, 329, 231-237. | 5.4 | 19 |
| 54 | Peroxygenase based sensor for aromatic compounds. <i>Biosensors and Bioelectronics</i> , 2010, 26, 1432-1436. | 10.1 | 16 |

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|----|--|------|-----------|
| 55 | Bioelectrocatalytic properties of <i>Agroclybe aegerita</i> peroxygenase. <i>Electrochimica Acta</i> , 2010, 55, 7809-7813. | 5.2 | 15 |
| 56 | Enzyme electrode for aromatic compounds exploiting the catalytic activities of microperoxidase-11. <i>Biosensors and Bioelectronics</i> , 2011, 30, 320-323. | 10.1 | 15 |
| 57 | Cytochrome c-Derived Hybrid Systems Based on Molecularly Imprinted Polymers. <i>Electroanalysis</i> , 2015, 27, 573-586. | 2.9 | 15 |
| 58 | The aromatic peroxygenase from <i>Marasmius rutola</i> —a new enzyme for biosensor applications. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 405-412. | 3.7 | 14 |
| 59 | Surface-Tuned Electron Transfer and Electrocatalysis of Hexameric Tyrosine-Coordinated Heme Protein. <i>Chemistry - A European Journal</i> , 2015, 21, 7596-7602. | 3.3 | 14 |
| 60 | MIP-Esterase/Tyrosinase Combinations for Paracetamol and Phenacetin. <i>Electroanalysis</i> , 2016, 28, 2222-2227. | 2.9 | 14 |
| 61 | “Out of Pocket” Protein Binding—A Dilemma of Epitope Imprinted Polymers Revealed for Human Hemoglobin. <i>Chemosensors</i> , 2021, 9, 128. | 3.6 | 13 |
| 62 | Peroxide-Dependent Analyte Conversion by the Heme Prosthetic Group, the Heme Peptide and Microperoxidase-11 and Cytochrome c on Chitosan Capped Gold Nanoparticles Modified Electrodes. <i>Biosensors</i> , 2012, 2, 189-204. | 4.7 | 12 |
| 63 | Third Generation ATP Sensor with Enzymatic Analyte Recycling. <i>Electroanalysis</i> , 2014, 26, 2043-2048. | 2.9 | 12 |
| 64 | Enzymes as Tools in MIP-Sensors. <i>Chemosensors</i> , 2017, 5, 11. | 3.6 | 12 |
| 65 | Preparation and characterization of novel molecularly imprinted polymers based on thiourea receptors for nitrocompounds recognition. <i>Talanta</i> , 2011, 84, 274-279. | 5.5 | 11 |
| 66 | Future of Biosensors: A Personal View. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2013, 140, 1-28. | 1.1 | 11 |
| 67 | Insights in electrosynthesis, target binding, and stability of peptide-imprinted polymer nanofilms. <i>Electrochimica Acta</i> , 2021, 381, 138236. | 5.2 | 11 |
| 68 | Direct electron transfer of <i>Agroclybe aegerita</i> peroxygenase at electrodes modified with chitosan-capped Au nanoparticles and its bioelectrocatalysis to aniline. <i>Sensors and Actuators B: Chemical</i> , 2011, 160, 1419-1426. | 7.8 | 9 |
| 69 | Can peroxygenase and microperoxidase substitute cytochrome P450 in biosensors. <i>Bioanalytical Reviews</i> , 2011, 3, 67-94. | 0.2 | 9 |
| 70 | Carboxylated or Aminated Polyaniline—Multiwalled Carbon Nanotubes Nanohybrids for Immobilization of Cellobiose Dehydrogenase on Gold Electrodes. <i>Biosensors</i> , 2014, 4, 370-386. | 4.7 | 9 |
| 71 | Characterization of Binding of Cholinesterases to Surface Immobilized Ligands. <i>Analytical Letters</i> , 2006, 39, 1491-1502. | 1.8 | 8 |
| 72 | Bio-Electrosynthesis of Vectorially Imprinted Polymer Nanofilms for Cytochrome P450cam. <i>ChemElectroChem</i> , 2019, 6, 1818-1823. | 3.4 | 8 |

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|----|---|-----|-----------|
| 73 | Enzyme Sensors for Subnanomolar Concentrations. ACS Symposium Series, 1996, , 70-81. | 0.5 | 7 |
| 74 | Electrochemical Determination of Human Hemoglobin by Using Ferrocene Carboxylic Acid Modified Carbon Powder Microelectrode. Analytical Letters, 2003, 36, 2049-2059. | 1.8 | 7 |
| 75 | Characterization of the enhanced peroxidatic activity of amyloid β peptide-hemin complexes towards neurotransmitters. Analytical and Bioanalytical Chemistry, 2014, 406, 3359-3364. | 3.7 | 7 |
| 76 | Enhancement of the Electrocatalytic Activity of Thienyl-Substituted Iron Porphyrin Electropolymers by a Hangman Effect. ChemCatChem, 2018, 10, 4353-4361. | 3.7 | 7 |
| 77 | Bioelectrocatalysis by Microperoxidase-11 in a Multilayer Architecture of Chitosan Embedded Gold Nanoparticles. Electroanalysis, 2011, 23, 611-618. | 2.9 | 6 |
| 78 | The Electrically Wired Molybdenum Domain of Human Sulfite Oxidase is Bioelectrocatalytically Active. European Journal of Inorganic Chemistry, 2015, 2015, 3526-3531. | 2.0 | 5 |
| 79 | Label-Free MIP Sensors for Protein Biomarkers. Springer Series on Chemical Sensors and Biosensors, 2017, , 291-321. | 0.5 | 4 |
| 80 | Catalytically Active MIP Architectures. , 2016, , 19-34. | | 3 |
| 81 | Molecularly Imprinted Polymer-Based Nanosensors for Pharmaceutical Analysis. , 2019, , 231-271. | | 3 |
| 82 | New Recognition Elements in Biosensing. Annals of the New York Academy of Sciences, 1998, 864, 37-45. | 3.8 | 2 |
| 83 | Quantum dot-based electrochemical molecularly imprinted polymer sensors: potentials and challenges. , 2021, , 121-153. | | 2 |
| 84 | Aptamers: Hybrids between Nature and Technology. , 0, , 87-99. | | 1 |
| 85 | Focus on bioanalysis. Analytical and Bioanalytical Chemistry, 2010, 398, 2337-2339. | 3.7 | 1 |
| 86 | Molecular Imprinting Technique for Biosensing and Diagnostics. Springer Series on Chemical Sensors and Biosensors, 2012, , 143-170. | 0.5 | 1 |
| 87 | Direct Electron Transfer and Bioelectrocatalysis by a Hexameric, Heme Protein at Nanostructured Electrodes. Electroanalysis, 2015, 27, 2262-2267. | 2.9 | 1 |
| 88 | Electrochemical Approaches for Molecular Surface Imprinting of Polymers Toward Fully Synthetic Receptors for Selective Recognition of Proteins. , 2015, , 347-356. | | 1 |
| 89 | Electrochemical Investigation of Cellobiose Oxidation by Cellobiose Oxidase in Presence of Cytochrome c as Mediator. Biochemical Society Transactions, 2000, 28, A20-A20. | 3.4 | 0 |
| 90 | Tribute to Günter Gauglitz. Analytical and Bioanalytical Chemistry, 2009, 393, 1555-1556. | 3.7 | 0 |

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|----|--|------|-----------|
| 91 | Biomimetic Sensors: Vectorially Imprinted Hybrid Nanofilm for Acetylcholinesterase Recognition (Adv. Funct. Mater. 32/2015). Advanced Functional Materials, 2015, 25, 5078-5078. | 14.9 | 0 |
| 92 | A tribute to Isao Karube (1942â€“2020) and his influence on sensor science. Analytical and Bioanalytical Chemistry, 2020, 412, 7709-7711. | 3.7 | 0 |
| 93 | Can peroxygenase and microperoxidase substitute cytochrome P450 in biosensors. , 2013, , 197-224. | | 0 |