

Steffi Krause

List of Publications by Year in descending order

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57
papers

1,633
citations

257450

24
h-index

302126

39
g-index

61
all docs

61
docs citations

61
times ranked

1750
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of oxygen vacancies in ZnO nanorods by annealing and their influence on ZnO/PEDOT:PSS diode behaviour. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1815-1821.	5.5	129
2	Electrochemical Sensor for Measurement of Urea and Creatinine in Serum Based on ac Impedance Measurement of Enzyme-Catalyzed Polymer Transformation. <i>Analytical Chemistry</i> , 1999, 71, 1940-1946.	6.5	89
3	Electrochemical Sensors Based on Impedance Measurement of Enzyme-Catalyzed Polymer Dissolution: Theory and Applications. <i>Analytical Chemistry</i> , 1995, 67, 3928-3935.	6.5	84
4	Disposable MMP-9 sensor based on the degradation of peptide cross-linked hydrogel films using electrochemical impedance spectroscopy. <i>Biosensors and Bioelectronics</i> , 2015, 68, 660-667.	10.1	69
5	Simultaneous Quartz Crystal Microbalance Impedance and Electrochemical Impedance Measurements. Investigation into the Degradation of Thin Polymer Films. <i>Analytical Chemistry</i> , 2002, 74, 3304-3311.	6.5	62
6	High resolution LAPS using amorphous silicon as the semiconductor material. <i>Sensors and Actuators B: Chemical</i> , 2004, 103, 436-441.	7.8	55
7	Incorporation of Ag nanowires in CuWO ₄ for improved visible light-induced photoanode performance. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9638-9644.	10.3	55
8	Photoelectrochemical response of carbon dots (CDs) derived from chitosan and their use in electrochemical imaging. <i>Materials Horizons</i> , 2018, 5, 423-428.	12.2	55
9	High resolution LAPS and SPIM. <i>Electrochemistry Communications</i> , 2010, 12, 758-760.	4.7	53
10	High-sensitivity light-addressable potentiometric sensors using silicon on sapphire functionalized with self-assembled organic monolayers. <i>Sensors and Actuators B: Chemical</i> , 2015, 209, 230-236.	7.8	53
11	Ammonia Gas Sensor Response of a Vertical Zinc Oxide Nanorod-Gold Junction Diode at Room Temperature. <i>ACS Sensors</i> , 2020, 5, 3568-3575.	7.8	47
12	A label-free aptasensor for the sensitive and specific detection of cocaine using supramolecular aptamer fragments/target complex by electrochemical impedance spectroscopy. <i>Talanta</i> , 2012, 92, 65-71.	5.5	43
13	Biosensor based on enzyme-catalysed degradation of thin polymer films. <i>Biosensors and Bioelectronics</i> , 2001, 16, 709-714.	10.1	42
14	Sensor materials for the detection of proteases. <i>Biosensors and Bioelectronics</i> , 2009, 24, 2113-2118.	10.1	38
15	Photoelectrochemical Imaging System for the Mapping of Cell Surface Charges. <i>Analytical Chemistry</i> , 2019, 91, 5896-5903.	6.5	38
16	Photocurrent measurements for laterally resolved interface characterization. <i>Fresenius' Journal of Analytical Chemistry</i> , 2000, 367, 329-333.	1.5	36
17	Scanning photo-induced impedance microscopy—an impedance based imaging technique. <i>Electrochimica Acta</i> , 2002, 47, 2143-2148.	5.2	36
18	Chemical sensitivity of an ISFET with Ta ₂ O ₅ membrane in strong acid and alkaline solutions. <i>Sensors and Actuators B: Chemical</i> , 1991, 3, 75-81.	7.8	35

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19	A Transducer Based on Enzyme-Induced Degradation of Thin Polymer Films Monitored by Surface Plasmon Resonance. <i>Analytical Chemistry</i> , 2000, 72, 5225-5232.	6.5	33
20	Scanning Photo-Induced Impedance Microscopyâ€”Resolution studies and polymer characterization. <i>Electrochimica Acta</i> , 2006, 51, 1423-1430.	5.2	33
21	Light-Addressable Potentiometric Sensors Using ZnO Nanorods as the Sensor Substrate for Bioanalytical Applications. <i>Analytical Chemistry</i> , 2018, 90, 8708-8715.	6.5	30
22	Peptide Cross-Linked Poly (Ethylene Glycol) Hydrogel Films as Biosensor Coatings for the Detection of Collagenase. <i>Sensors</i> , 2019, 19, 1677.	3.8	29
23	Flexible and Stretchable Self-Powered Multi-Sensors Based on the N-Type Thermoelectric Response of Polyurethane/Ni _x /Ni Composites. <i>Advanced Electronic Materials</i> , 2019, 5, 1900582.	5.1	28
24	Click-Patterning of Self-Assembled Monolayers on Hydrogen-Terminated Silicon Surfaces and Their Characterization Using Light-Addressable Potentiometric Sensors. <i>Langmuir</i> , 2015, 31, 9646-9654.	3.5	27
25	The effect of gold nanoparticles on the impedance of microcapsules visualized by scanning photo-induced impedance microscopy. <i>Electrochimica Acta</i> , 2016, 208, 39-46.	5.2	25
26	Image detection of yeast <i>Saccharomyces cerevisiae</i> by light-addressable potentiometric sensors (LAPS). <i>Electrochemistry Communications</i> , 2016, 72, 41-45.	4.7	25
27	Photoelectrochemical imaging system with high spatiotemporal resolution for visualizing dynamic cellular responses. <i>Biosensors and Bioelectronics</i> , 2021, 180, 113121.	10.1	23
28	Biological imaging using light-addressable potentiometric sensors and scanning photo-induced impedance microscopy. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20170130.	2.1	21
29	LAPS and SPIM Imaging Using ITO-Coated Glass as the Substrate Material. <i>Analytical Chemistry</i> , 2017, 89, 8129-8133.	6.5	21
30	Self-powered ultrasensitive and highly stretchable temperature-strain sensing composite yarns. <i>Materials Horizons</i> , 2021, 8, 2513-2519.	12.2	21
31	Monitoring of HF and F2 using a field-effect sensor. <i>Sensors and Actuators B: Chemical</i> , 1995, 24, 194-196.	7.8	20
32	Repair of thin thermally grown silicon dioxide by anodic oxidation. <i>Electrochimica Acta</i> , 2008, 53, 3395-3402.	5.2	20
33	Surface modification and construction of LAPS towards biosensing applications. <i>Sensors and Actuators B: Chemical</i> , 2018, 265, 161-173.	7.8	20
34	Improved long-term stability for an LaF3 based oxygen sensor. <i>Sensors and Actuators B: Chemical</i> , 1994, 18, 148-154.	7.8	19
35	Î±-Amylase sensor based on the degradation of oligosaccharide hydrogel films monitored with a quartz crystal sensor. <i>Biosensors and Bioelectronics</i> , 2015, 67, 540-545.	10.1	19
36	A peptide cross-linked polyacrylamide hydrogel for the detection of human neutrophil elastase. <i>Electrochimica Acta</i> , 2009, 54, 4985-4990.	5.2	18

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37	InGaN as a Substrate for AC Photoelectrochemical Imaging. <i>Sensors</i> , 2019, 19, 4386.	3.8	18
38	Modulated light-activated electrochemistry at silicon functionalized with metal-organic frameworks towards addressable DNA chips. <i>Biosensors and Bioelectronics</i> , 2019, 146, 111750.	10.1	18
39	A low-temperature oxygen sensor based on the Si/LaF ₃ /Pt capacitive structure. <i>Sensors and Actuators B: Chemical</i> , 1992, 9, 191-196.	7.8	17
40	Peptide Cross-Linked Poly(2-oxazoline) as a Sensor Material for the Detection of Proteases with a Quartz Crystal Microbalance. <i>Biomacromolecules</i> , 2019, 20, 2506-2514.	5.4	17
41	Copper Contamination of Self-Assembled Organic Monolayer Modified Silicon Surfaces Following a "Click" Reaction Characterized with LAPS and SPIM. <i>Langmuir</i> , 2017, 33, 3170-3177.	3.5	16
42	Biosensor Arrays Based on the Degradation of Thin Polymer Films Interrogated by Scanning Photoinduced Impedance Microscopy. <i>Analytical Chemistry</i> , 2007, 79, 8974-8978.	6.5	13
43	Light-Addressable Electrochemical Sensors toward Spatially Resolved Biosensing and Imaging Applications. <i>ACS Sensors</i> , 2022, 7, 1791-1807.	7.8	13
44	Re-activation of an all solid state oxygen sensor. <i>Analytica Chimica Acta</i> , 2001, 437, 183-190.	5.4	11
45	Scanning Photoinduced Impedance Microscopy Using Amorphous Silicon Photodiode Structures. <i>Analytical Chemistry</i> , 2007, 79, 6208-6214.	6.5	10
46	Generic protease detection technology for monitoring periodontal disease. <i>Faraday Discussions</i> , 2011, 149, 37-47.	3.2	10
47	Behaviour of pHsensitive polymers on metal electrodes. <i>Journal of Applied Electrochemistry</i> , 1997, 27, 291-298.	2.9	9
48	Selected Papers from the Second International Conference on Optical, Optoelectronic and Photonic Materials and Applications, 2007. <i>Journal of Materials Science: Materials in Electronics</i> , 2009, 20, 1-2.	2.2	9
49	Influence of the LaF ₃ /metal interface on the properties of a low temperature oxygen sensor. <i>Sensors and Actuators B: Chemical</i> , 1993, 16, 252-255.	7.8	7
50	Diversiform applications of LaF ₃ for chemical semiconductor sensors. <i>Sensors and Actuators B: Chemical</i> , 1992, 7, 497-500.	7.8	6
51	Dynamic response of a low-temperature field-effect oxygen sensor. <i>Sensors and Actuators B: Chemical</i> , 1993, 14, 499-500.	7.8	2
52	Collagenase Biosensor Based on the Degradation of Peptide Cross-Linked Poly(Ethylene Glycol) Hydrogel Films. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	2
53	Photoelectrochemical Imaging Using Carbon Dots (CDs) Derived from Chitosan. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	2
54	The Effect of Semiconductor Morphology on the Spatial Resolution of ZnO Based Light-Addressable Potentiometric Sensors. <i>Proceedings (mdpi)</i> , 2018, 2, 917.	0.2	1

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55	Biosensor arrays based on the degradation of thin polymer films interrogated by Scanning Photo-induced Impedance Microscopy. , 2006, , .		0
56	Degradation Behaviour of Thin Polymer Films of Poly(Amide Ester) Hydrogel Using Quartz Crystal Microbalance. Advanced Materials Research, 2013, 812, 38-45.	0.3	0
57	(Bio-)chemical Sensing and Imaging by LAPS and SPIM. Springer Series on Chemical Sensors and Biosensors, 2018, , 103-132.	0.5	0