Tim Albrecht

List of Publications by Year
in descending order

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114 papers	4,029 citations	145106 33 h-index	145109 60 g-index
119 all docs	119 docs citations	119 times ranked	5318 citing authors

#	Article	IF	Citations
1	Analytical nanoscience. Analyst, The, 2022, 147, 765-766.	1.7	2
2	Multi-component self-assembled molecular-electronic films: towards new high-performance thermoelectric systems. Chemical Science, 2022, 13, 5176-5185.	3.7	14
3	Assembly, structure and thermoelectric properties of 1,1â€²-dialkynylferrocene â€˜hingesâ€™. Chemical Science, 2022, 13, 8380-8387.	3.7	8
4	Unraveling the Causes of the Instability of Au_n(SR)_x Nanoclusters on Au(111). Chemistry of Materials, 2021, 33, 3428-3435.	3.2	3
5	Multivariate Approach to Single-Molecule Thermopower and Electrical Conductance Measurements. Journal of Physical Chemistry C, 2021, 125, 26256-26262.	1.5	1
6	Taming the thermodiffusion of alkali halide solutions in silica nanopores. Nanoscale, 2020, 12, 23626-23635.	2.8	4
7	Stepwise electrochemical deposition and single-molecule conductance of nucleic acid analogues. Electrochimica Acta, 2020, 346, 136159.	2.6	0
8	Dynamics of RS-(Au-SR)_x Staple Motifs on Metal Surfaces: From Nanoclusters to 2D Surfaces. Journal of Physical Chemistry C, 2020, 124, 5452-5459.	1.5	6
9	Scale-Up of Room-Temperature Constructive Quantum Interference from Single Molecules to Self-Assembled Molecular-Electronic Films. Journal of the American Chemical Society, 2020, 142, 8555-8560.	6.6	34
10	Combined Impact of Denticity and Orientation on Molecular-Scale Charge Transport. Journal of Physical Chemistry C, 2020, 124, 9460-9469.	1.5	4
11	Shedding Light on the Interfacial Structure of Low-Coverage Alkanethiol Lattices. Journal of Physical Chemistry C, 2020, 124, 26748-26758.	1.5	6
12	Unsupervised classification of single-molecule data with autoencoders and transfer learning. Machine Learning: Science and Technology, 2020, 1, 035013.	2.4	16
13	Surface Design: Exploiting the Instability of Small Nanoparticles on Metallic Substrates. ECS Meeting Abstracts, 2020, MA2020-01, 2865-2865.	0.0	0
14	DNA Assay-on-a-String: Rapid Detection of Marker Panels Against Sepsis. ECS Meeting Abstracts, 2020, MA2020-01, 1966-1966.	0.0	0
15	Surface Design: Exploiting the Instability of Small Nanoparticles on Metallic Substrates. ECS Transactions, 2020, 97, 885-892.	0.3	0
16	Assisted delivery of anti-tumour platinum drugs using DNA-coiling gold nanoparticles bearing lumophores and intercalators: towards a new generation of multimodal nanocarriers with enhanced action. Chemical Science, 2019, 10, 9244-9256.	3.7	17
17	Single-Molecule Analysis with Solid-State Nanopores. Annual Review of Analytical Chemistry, 2019, 12, 371-387.	2.8	60
18	Gold-Induced Desulfurization in a Bis(ferrocenyl) Alkane Dithiol. Organometallics, 2019, 38, 2227-2232.	1.1	0

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19	Rapid Fragmentation during Seeded Lysozyme Aggregation Revealed at the Single Molecule Level. Analytical Chemistry, 2019, 91, 6880-6886.	3.2	7
20	Cyclic Voltammetry Peaks Due to Deep Level Traps in Si Nanowire Array Electrodes. IEEE Nanotechnology Magazine, 2018, 17, 154-160.	1.1	2
21	Disentangling chemical effects in ionic-liquid-based Cu leaching from chalcopyrite. Journal of Electroanalytical Chemistry, 2018, 819, 130-135.	1.9	10
22	A Redoxâ€Activated Gâ€Quadruplex DNA Binder Based on a Platinum(IV)â€“Salphen Complex. Angewandte Chemie, 2018, 130, 316-319.	1.6	17
23	Electrochemical processes at the nanoscale. Current Opinion in Electrochemistry, 2018, 7, 138-145.	2.5	16
24	Controlling the Dynamic Instability of Capped Metal Nanoparticles on Metallic Surfaces. Journal of Physical Chemistry Letters, 2018, 9, 57-62.	2.1	13
25	A Redoxâ€Activated Gâ€Quadruplex DNA Binder Based on a Platinum(IV)â€“Salphen Complex. Angewandte Chemie - International Edition, 2018, 57, 310-313.	7.2	52
26	Electric Single-Molecule Hybridization Detector for Short DNA Fragments. Analytical Chemistry, 2018, 90, 14063-14071.	3.2	15
27	Cross-plane conductance through a graphene/molecular monolayer/Au sandwich. Nanoscale, 2018, 10, 19791-19798.	2.8	12
28	Ferroceneâ€•and Biferroceneâ€Containing Macrocycles towards Singleâ€Molecule Electronics. Angewandte Chemie - International Edition, 2017, 56, 6838-6842.	7.2	42
29	Ferroceneâ€•and Biferroceneâ€Containing Macrocycles towards Singleâ€Molecule Electronics. Angewandte Chemie, 2017, 129, 6942-6946.	1.6	6
30	Singleâ€Molecule Conductance Studies of Organometallic Complexes Bearing 3â€Thienyl Contacting Groups. Chemistry - A European Journal, 2017, 23, 2133-2143.	1.7	50
31	A computational approach to calculate the heat of transport of aqueous solutions. Scientific Reports, 2017, 7, 44833.	1.6	22
32	The role of ionâ€“water interactions in determining the Soret coefficient of LiCl aqueous solutions. Physical Chemistry Chemical Physics, 2017, 19, 9575-9583.	1.3	25
33	TiO₂ coated Si nanowire electrodes for electrochemical double layer capacitors in room temperature ionic liquid. Journal Physics D: Applied Physics, 2017, 50, 415503.	1.3	11
34	Progress in single-biomolecule analysis with solid-state nanopores. Current Opinion in Electrochemistry, 2017, 4, 159-165.	2.5	16
35	High-Vacuum Deposition of Biferrocene Thin Films on Room-Temperature Substrates. Chemistry of Materials, 2017, 29, 8663-8669.	3.2	4
36	Single Molecule Trapping and Sensing Using Dual Nanopores Separated by a Zeptoliter Nanobridge. Nano Letters, 2017, 17, 6376-6384.	4.5	52

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37	Ionic liquids for metal extraction from chalcopyrite: solid, liquid and gas phase studies. Physical Chemistry Chemical Physics, 2017, 19, 21556-21564.	1.3	18
38	Deep learning for single-molecule science. Nanotechnology, 2017, 28, 423001.	1.3	54
39	Insulated molecular wires: inhibiting orthogonal contacts in metal complex based molecular junctions. Nanoscale, 2017, 9, 9902-9912.	2.8	30
40	Functionalised Biferrocene Systems towards Molecular Electronics. European Journal of Inorganic Chemistry, 2017, 2017, 496-504.	1.0	18
41	Electrochemistry of single nanoparticles: general discussion. Faraday Discussions, 2016, 193, 387-413.	1.6	13
42	Nanopores: general discussion. Faraday Discussions, 2016, 193, 507-531.	1.6	1
43	A robotic platform for high-throughput electrochemical analysis of chalcopyrite leaching. Green Chemistry, 2016, 18, 1930-1937.	4.6	13
44	Oxide-coated silicon nanowire array capacitor electrodes in room temperature ionic liquid. Electrochimica Acta, 2016, 210, 32-37.	2.6	13
45	High-bandwidth detection of short DNA in nanopipettes. Faraday Discussions, 2016, 193, 459-470.	1.6	19
46	Unsupervised vector-based classification of single-molecule charge transport data. Nature Communications, 2016, 7, 12922.	5.8	62
47	Oligomeric ferrocene rings. Nature Chemistry, 2016, 8, 825-830.	6.6	82
48	Probing DNA Translocations in Nanopipettes using High-Speed Detection Electronics. Biophysical Journal, 2016, 110, 655a.	0.2	0
49	Principles of a Single-Molecule Rectifier in Electrolytic Environment. Journal of Physical Chemistry C, 2016, 120, 3089-3106.	1.5	11
50	Complexes comprising â€˜danglingâ€™ phosphorus arms and tri(hetero)metallic butenynyl moieties. Journal of Organometallic Chemistry, 2016, 812, 145-150.	0.8	1
51	Trianguleniums as Optical Probes for Gâ€Quadruplexes: Aâ€…Photophysical, Electrochemical, and Computational Study. Chemistry - A European Journal, 2016, 22, 4129-4139.	1.7	29
52	Single-Molecule Studies of Unlabeled Full-Length p53 Protein Binding to DNA. Journal of Physical Chemistry B, 2016, 120, 2106-2114.	1.2	17
53	High-speed detection of DNA translocation in nanopipettes. Nanoscale, 2016, 8, 7604-7611.	2.8	27
54	Low Noise Nanopore Platforms Optimised for the Synchronised Optical and Electrical Detection of Biomolecules. RSC Nanoscience and Nanotechnology, 2016, , 270-300.	0.2	1

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55	Synchronized Optical and Electronic Detection of Biomolecules Using a Low Noise Nanopore Platform. ACS Nano, 2015, 9, 1740-1748.	7.3	62
56	Electrodeposition and Bipolar Effects in Metallized Nanopores and Their Use in the Detection of Insulin. Analytical Chemistry, 2015, 87, 2337-2344.	3.2	27
57	New Insights into Single-Molecule Junctions Using a Robust, Unsupervised Approach to Data Collection and Analysis. Journal of the American Chemical Society, 2015, 137, 9971-9981.	6.6	50
58	Which way up? Recognition of homologous DNA segments in parallel and antiparallel alignments. Journal of Chemical Physics, 2015, 142, 045101.	1.2	12
59	Challenges of Biomolecular Detection at the Nanoscale: Nanopores and Microelectrodes. Analytical Chemistry, 2015, 87, 5470-5475.	3.2	27
60	The Unusual Redox Properties of Fluoroferrocenes Revealed through a Comprehensive Study of the Haloferrocenes. Organometallics, 2015, 34, 5461-5469.	1.1	26
61	Electronic structures of cyclometalated palladium complexes in the higher oxidation states. Dalton Transactions, 2015, 44, 16586-16591.	1.6	17
62	Avoiding problem reactions at the ferrocenyl-alkyne motif: a convenient synthesis of model, redox-active complexes for molecular electronics. Dalton Transactions, 2014, 43, 15287-15290.	1.6	14
63	High Precision Fabrication and Positioning of Nanoelectrodes in a Nanopore. ACS Nano, 2014, 8, 1940-1948.	7.3	33
64	Single Molecule Ionic Current Sensing in Segmented Flow Microfluidics. Analytical Chemistry, 2014, 86, 1864-1871.	3.2	21
65	SSB Binding to Single-Stranded DNA Probed Using Solid-State Nanopore Sensors. Journal of Physical Chemistry B, 2014, 118, 11605-11612.	1.2	33
66	Probing DNA Methylation in Breast Cancer Cell Lines Using Solid-State Nanopores. Biophysical Journal, 2014, 106, 18a.	0.2	2
67	Label-Free Detection of the P53-DNA Complex. Biophysical Journal, 2014, 106, 18a.	0.2	0
68	Label-Free Pb(II) Whispering Gallery Mode Sensing Using Self-Assembled Glutathione-Modified Gold Nanoparticles on an Optical Microcavity. Analytical Chemistry, 2014, 86, 6299-6306.	3.2	51
69	Design and characterization of a current sensing platform for silicon-based nanopores with integrated tunneling nanoelectrodes. Analog Integrated Circuits and Signal Processing, 2013, 77, 333-343.	0.9	16
70	Rapid Ultrasensitive Single Particle Surface-Enhanced Raman Spectroscopy Using Metallic Nanopores. Nano Letters, 2013, 13, 4602-4609.	4.5	100
71	Mapping the Ion Current Distribution in Nanopore/Electrode Devices. ACS Nano, 2013, 7, 547-555.	7.3	13
72	Oxidative purification of halogenated ferrocenes. Dalton Transactions, 2013, 42, 2813-2816.	1.6	57

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73	Ion Transport in Nanopores. , 2013, , 1-30.		15
74	Rapid Sonogashira cross-coupling of iodoferrocenes and the unexpected cyclo-oligomerization of 4-ethynylphenylthioacetate. Chemical Communications, 2013, 49, 5663.	2.2	31
75	Branched Redox-Active Complexes for the Study of Novel Charge Transport Processes. Organometallics, 2013, 32, 6053-6060.	1.1	25
76	Single-Molecule Studies of Intrinsically Disordered Proteins Using Solid-State Nanopores. Analytical Chemistry, 2013, 85, 2449-2456.	3.2	71
77	Wafer-Scale Ion Beam Lithography of Nanopore Devices. Microscopy and Microanalysis, 2013, 19, 912-913.	0.2	1
78	Solid-state nanopores for biosensing with submolecular resolution. Biochemical Society Transactions, 2012, 40, 624-628.	1.6	18
79	SSB Enhances Detection of ssDNA Translocation through Solid-State Nanopores. Biophysical Journal, 2012, 102, 205a.	0.2	1
80	Probing Electron Transport in Proteins at Room Temperature with Single-Molecule Precision. ACS Nano, 2012, 6, 13-16.	7.3	10
81	Low-noise dual-channel current amplifier for DNA sensing with solid-state nanopores. , 2012, , .		1
82	Electrochemical tunnelling sensors and their potential applications. Nature Communications, 2012, 3, 829.	5.8	58
83	Ultrafast Surface Enhanced Resonance Raman Scattering Detection in Droplet-Based Microfluidic Systems. Analytical Chemistry, 2011, 83, 3076-3081.	3.2	103
84	Flow-Based Autocorrelation Studies for the Detection and Investigation of Single-Particle Surface-Enhanced Resonance Raman Spectroscopic Events. Analytical Chemistry, 2011, 83, 1418-1424.	3.2	10
85	DNA Tunneling Detector Embedded in a Nanopore. Nano Letters, 2011, 11, 279-285.	4.5	214
86	How to Understand and Interpret Current Flow in Nanopore/Electrode Devices. ACS Nano, 2011, 5, 6714-6725.	7.3	30
87	A new look for nanopore sensing. Nature Nanotechnology, 2011, 6, 195-196.	15.6	13
88	Resizing Metalâ€Coated Nanopores Using a Scanning Electron Microscope. Small, 2011, 7, 2736-2741.	5.2	6
89	Nanopore/electrode structures for single-molecule biosensing. Electrochimica Acta, 2010, 55, 8237-8243.	2.6	34
90	New developments in nanopore researchâ€"from fundamentals to applications. Journal of Physics Condensed Matter, 2010, 22, 450301.	0.7	12

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91	Layering and shear properties of an ionic liquid, 1-ethyl-3-methylimidazolium ethylsulfate, confined to nano-films between mica surfaces. Physical Chemistry Chemical Physics, 2010, 12, 1243-1247.	1.3	269
92	Precise electrochemical fabrication of sub-20 nm solid-state nanopores for single-molecule biosensing. Journal of Physics Condensed Matter, 2010, 22, 454128.	0.7	33
93	Fabrication of Metallised Solid-State Nanopores Using Electrodeposition with Ionic Current Feedback. Biophysical Journal, 2010, 98, 598a.	0.2	0
94	Interfacial redox processes of cytochrome b562. Physical Chemistry Chemical Physics, 2009, 11, 7430.	1.3	35
95	Single-Molecule Electron Transfer in Electrochemical Environments. Chemical Reviews, 2008, 108, 2737-2791.	23.0	276
96	Charge transport in nanoscale junctions. Journal of Physics Condensed Matter, 2008, 20, 370301.	0.7	4
97	Charge Transfer And Interfacial Bioelectrochemistry At The Nanoscale And Single-Molecule Levels. , 2008, , 249-302.		6
98	Intrinsic Multistate Switching of Gold Clusters through Electrochemical Gating. Journal of the American Chemical Society, 2007, 129, 9162-9167.	6.6	61
99	A Density Functional Theory Study of the Electronic Properties of Os(II) and Os(III) Complexes Immobilized on Au(111). Inorganic Chemistry, 2007, 46, 117-124.	1.9	12
100	Single-Molecule Conductance of Redox Molecules in Electrochemical Scanning Tunneling Microscopyâ€. Journal of Physical Chemistry B, 2007, 111, 6703-6712.	1.2	100
101	Scanning Tunneling Spectroscopy in an Ionic Liquid. Journal of the American Chemical Society, 2006, 128, 6574-6575.	6.6	92
102	Mechanism of Electrochemical Charge Transport in Individual Transition Metal Complexes. Journal of the American Chemical Society, 2006, 128, 17132-17138.	6.6	94
103	In situscanning tunnelling spectroscopy of inorganic transition metal complexes. Faraday Discussions, 2006, 131, 265-279.	1.6	97
104	Voltammetry and in situ scanning tunnelling microscopy of de novo designed heme protein monolayers on Au(111)-electrode surfaces. Bioelectrochemistry, 2006, 69, 193-200.	2.4	17
105	Potential-induced structural transitions of DL-homocysteine monolayers on Au(111) electrode surfaces. Chemical Physics, 2005, 319, 210-221.	0.9	37
106	Electrochemistry and bioelectrochemistry towards the single-molecule level: Theoretical notions and systems. Electrochimica Acta, 2005, 50, 3143-3159.	2.6	51
107	Electrochemical and Spectroscopic Investigations of Immobilized De Novo Designed Heme Proteins on Metal Electrodes. ChemPhysChem, 2005, 6, 961-970.	1.0	26
108	Transistor Effects and In Situ STM of Redox Molecules at Room Temperature. IEEE Nanotechnology Magazine, 2005, 4, 430-434.	1.1	38

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109	Transistor-like Behavior of Transition Metal Complexes. Nano Letters, 2005, 5, 1451-1455.	4.5	144
110	Prototype for In Situ Detection of Atmospheric NO3and N2O5via Laser-Induced Fluorescence. Environmental Science & Technology, 2003, 37, 5732-5738.	4.6	71
111	Non-invasive diagnosis of hepatic cirrhosis by transit-time analysis of an ultrasound contrast agent. Lancet, The, 1999, 353, 1579-1583.	6.3	242
112	Prolongation and optimization of Doppler enhancement with a microbubble US contrast agent by using continuous infusion: preliminary experience.. Radiology, 1998, 207, 339-347.	3.6	150
113	Transistor effects and in situ STM of redox molecules at room temperature. , 0, , .		1
114	Chapter 5. Electrochemical applications of nanopore systems. SPR Electrochemistry, 0, , 155-186.	0.7	1