

# Jason J Davis

## List of Publications by Year in descending order

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126  
papers

6,994  
citations

50244

46  
h-index

66879

78  
g-index

131  
all docs

131  
docs citations

131  
times ranked

7450  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical biosensors and the label free detection of protein disease biomarkers. <i>Chemical Society Reviews</i> , 2013, 42, 5944.	18.7	381
2	Antifouling Strategies for Selective <i>In Vitro</i> and <i>In Vivo</i> Sensing. <i>Chemical Reviews</i> , 2020, 120, 3852-3889.	23.0	325
3	Protein electrochemistry at carbon nanotube electrodes. <i>Journal of Electroanalytical Chemistry</i> , 1997, 440, 279-282.	1.9	320
4	Chemical and Biochemical Sensing with Modified Single Walled Carbon Nanotubes. <i>Chemistry - A European Journal</i> , 2003, 9, 3732-3739.	1.7	292
5	An optimised electrochemical biosensor for the label-free detection of C-reactive protein in blood. <i>Biosensors and Bioelectronics</i> , 2013, 39, 94-98.	5.3	192
6	Reversible Luminescence Switching of a Redox-Active Ferrocene-Europium Dyad. <i>Journal of the American Chemical Society</i> , 2011, 133, 11847-11849.	6.6	149
7	Serum neuronal exosomes predict and differentiate Parkinson's disease from atypical parkinsonism. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2020, 91, 720-729.	0.9	148
8	Electrochemical Anion Sensing: Supramolecular Approaches. <i>Chemical Reviews</i> , 2020, 120, 1888-1935.	23.0	129
9	Zinc metalloporphyrin-functionalised nanoparticle anion sensors Electronic supplementary information (ESI) available: synthetic procedure for 1 and 2, titration experimental protocol and nanoparticle TEM. See <a href="http://www.rsc.org/suppdata/cc/b3/b313658b/">http://www.rsc.org/suppdata/cc/b3/b313658b/</a> . <i>Chemical Communications</i> , 2004, , 414.	2.2	124
10	The label free picomolar detection of insulin in blood serum. <i>Biosensors and Bioelectronics</i> , 2013, 39, 21-25.	5.3	124
11	Environmentally responsive MRI contrast agents. <i>Chemical Communications</i> , 2013, 49, 9704.	2.2	122
12	Exploring the Electronic and Mechanical Properties of Protein Using Conducting Atomic Force Microscopy. <i>Journal of the American Chemical Society</i> , 2004, 126, 5601-5609.	6.6	120
13	Interlocked hostrotaxane and catenane structures for sensing charged guest species via optical and electrochemical methodologies. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 415-424.	1.5	119
14	Electrochemical Aptasensor for Ultralow Fouling Cancer Cell Quantification in Complex Biological Media Based on Designed Branched Peptides. <i>Analytical Chemistry</i> , 2019, 91, 8334-8340.	3.2	106
15	Ultrasensitive Label Free Electrical Detection of Insulin in Neat Blood Serum. <i>Analytical Chemistry</i> , 2013, 85, 4129-4134.	3.2	98
16	Anion recognition and redox sensing amplification by self-assembled monolayers of 1,1'-bis(alkyl-N-amido)ferrocene. <i>Chemical Communications</i> , 2002, , 1716-1717.	2.2	97
17	Mechanically interlocked and switchable molecules at surfaces. <i>Chemical Communications</i> , 2010, 46, 54-63.	2.2	90
18	Low Fouling Protein Detection in Complex Biological Media Supported by a Designed Multifunctional Peptide. <i>ACS Sensors</i> , 2018, 3, 1210-1216.	4.0	89

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19	Low fouling label-free DNA sensor based on polyethylene glycols decorated with gold nanoparticles for the detection of breast cancer biomarkers. <i>Biosensors and Bioelectronics</i> , 2015, 71, 51-56.	5.3	87
20	Nanoparticle-Based Paramagnetic Contrast Agents for Magnetic Resonance Imaging. <i>Contrast Media and Molecular Imaging</i> , 2019, 2019, 1-13.	0.4	86
21	Capacitance Spectroscopy: A Versatile Approach To Resolving the Redox Density of States and Kinetics in Redox-Active Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2012, 116, 8822-8829.	1.2	85
22	Anion templated surface assembly of a redox-active sensory rotaxane. <i>Chemical Communications</i> , 2007, , 2234.	2.2	82
23	Multimodality and nanoparticles in medical imaging. <i>Dalton Transactions</i> , 2011, 40, 6087.	1.6	82
24	Halogen bonding-enhanced electrochemical halide anion sensing by redox-active ferrocene receptors. <i>Chemical Communications</i> , 2015, 51, 14640-14643.	2.2	81
25	A Dielectric Model of Self-Assembled Monolayer Interfaces by Capacitive Spectroscopy. <i>Langmuir</i> , 2012, 28, 9689-9699.	1.6	79
26	Sulfate anion templation of a neutral pseudorotaxane assembly using an indolocarbazole threading component. <i>Chemical Communications</i> , 2008, , 3154.	2.2	77
27	Fluorescent Cyclic Voltammetry of Immobilized Azurin: Direct Observation of Thermodynamic and Kinetic Heterogeneity. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5776-5779.	7.2	74
28	Label free redox capacitive biosensing. <i>Biosensors and Bioelectronics</i> , 2013, 50, 437-440.	5.3	74
29	The robust electrochemical detection of a Parkinson's disease marker in whole blood sera. <i>Chemical Science</i> , 2012, 3, 3468.	3.7	72
30	Protein adsorption at a gold electrode studied by in situ scanning tunnelling microscopy. <i>New Journal of Chemistry</i> , 1998, 22, 1119-1123.	1.4	68
31	Sensitive Affimer and Antibody Based Impedimetric Label-Free Assays for C-Reactive Protein. <i>Analytical Chemistry</i> , 2012, 84, 6553-6560.	3.2	68
32	Label-free Capacitive Diagnostics: Exploiting Local Redox Probe State Occupancy. <i>Analytical Chemistry</i> , 2014, 86, 2559-2564.	3.2	67
33	Redox Capacitive Assaying of C-Reactive Protein at a Peptide Supported Aptamer Interface. <i>Analytical Chemistry</i> , 2018, 90, 3005-3008.	3.2	66
34	Concentration-Normalized Electroanalytical Assaying of Exosomal Markers. <i>Analytical Chemistry</i> , 2017, 89, 3184-3190.	3.2	65
35	Point of Care Sensors for Infectious Pathogens. <i>Analytical Chemistry</i> , 2021, 93, 184-197.	3.2	63
36	Measuring Quantum Capacitance in Energetically Addressable Molecular Layers. <i>Analytical Chemistry</i> , 2014, 86, 1337-1341.	3.2	62

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37	Ultrasensitive and selective voltammetric aptasensor for dopamine based on a conducting polymer nanocomposite doped with graphene oxide. <i>Mikrochimica Acta</i> , 2015, 182, 1123-1129.	2.5	62
38	Validation of $\alpha$ -Synuclein in L1CAM-Immunocaptured Exosomes as a Biomarker for the Stratification of Parkinsonian Syndromes. <i>Movement Disorders</i> , 2021, 36, 2663-2669.	2.2	62
39	The scanning probe microscopy of metalloproteins and metalloenzymes. <i>Chemical Communications</i> , 2002, , 393-401.	2.2	61
40	Label-Free Sub-picomolar Protein Detection with Field-Effect Transistors. <i>Analytical Chemistry</i> , 2010, 82, 3531-3536.	3.2	61
41	Solution and surface-confined chloride anion templated redox-active ferrocene catenanes. <i>Chemical Science</i> , 2012, 3, 1080.	3.7	61
42	Elucidating Capacitance and Resistance Terms in Confined Electroactive Molecular Layers. <i>Analytical Chemistry</i> , 2013, 85, 411-417.	3.2	58
43	Exploiting the mechanical bond for molecular recognition and sensing of charged species. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1052-1073.	3.2	58
44	Redox and Label-Free Array Detection of Protein Markers in Human Serum. <i>Analytical Chemistry</i> , 2014, 86, 5553-5558.	3.2	55
45	Peptide Aptamers in Label-Free Protein Detection: 1. Characterization of the Immobilized Scaffold. <i>Analytical Chemistry</i> , 2007, 79, 1089-1096.	3.2	54
46	Location-tuned relaxivity in Gd-doped mesoporous silica nanoparticles. <i>Journal of Materials Chemistry</i> , 2012, 22, 22848.	6.7	53
47	Spatially Controlled Suzuki and Heck Catalytic Molecular Coupling. <i>Journal of the American Chemical Society</i> , 2006, 128, 14135-14141.	6.6	50
48	Halogen Bonding Tetraphenylethene Anion Receptors: Anion-Induced Emissive Aggregates and Photoswitchable Recognition. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19442-19450.	7.2	49
49	Spatially Resolved Suzuki Coupling Reaction Initiated and Controlled Using a Catalytic AFM Probe. <i>Journal of the American Chemical Society</i> , 2005, 127, 13082-13083.	6.6	47
50	Metalloprotein tunnel junctions: compressional modulation of barrier height and transport mechanism. <i>Faraday Discussions</i> , 2006, 131, 167-179.	1.6	47
51	Amplification of anion sensing by disulfide functionalized ferrocene and ferrocene-calixarene receptors adsorbed onto gold surfaces. <i>Dalton Transactions</i> , 2010, 39, 6532.	1.6	47
52	Facile Impedimetric Analysis of Neuronal Exosome Markers in Parkinson's Disease Diagnostics. <i>Analytical Chemistry</i> , 2020, 92, 13647-13651.	3.2	47
53	A dual marker label free electrochemical assay for Flavivirus dengue diagnosis. <i>Biosensors and Bioelectronics</i> , 2018, 100, 519-525.	5.3	46
54	A scanning tunnelling study of immobilised cytochrome P450cam. <i>Faraday Discussions</i> , 2000, 116, 15-22.	1.6	45

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55	Force dependent metalloprotein conductance by conducting atomic force microscopy. <i>Nanotechnology</i> , 2003, 14, 1023-1028.	1.3	45
56	Peptide Aptamers in Label-Free Protein Detection: 2. Chemical Optimization and Detection of Distinct Protein Isoforms. <i>Analytical Chemistry</i> , 2009, 81, 3314-3320.	3.2	45
57	Capacitance spectroscopy and density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 9375-9382.	1.3	45
58	A halogen-bonding foldamer molecular film for selective reagentless anion sensing in water. <i>Chemical Communications</i> , 2019, 55, 4849-4852.	2.2	45
59	Anion Sensing by Solution- and Surface-Assembled Osmium(II) Bipyridyl Rotaxanes. <i>Chemistry - A European Journal</i> , 2013, 19, 15898-15906.	1.7	44
60	Elucidating Redox-Level Dispersion and Local Dielectric Effects within Electroactive Molecular Films. <i>Analytical Chemistry</i> , 2014, 86, 1997-2004.	3.2	44
61	Reagentless Redox Capacitive Assaying of C-Reactive Protein at a Polyaniline Interface. <i>Analytical Chemistry</i> , 2020, 92, 3508-3511.	3.2	42
62	Anion Templated Formation of Pseudorotaxane and Rotaxane Monolayers on Gold from Neutral Components. <i>Langmuir</i> , 2009, 25, 2935-2940.	1.6	41
63	The Diagnostic Utility of Electrochemical Impedance. <i>Electroanalysis</i> , 2014, 26, 1249-1258.	1.5	40
64	Charge transport and energy storage at the molecular scale: from nanoelectronics to electrochemical sensing. <i>Chemical Society Reviews</i> , 2020, 49, 7505-7515.	18.7	39
65	Redox-Switchable Chalcogen Bonding for Anion Recognition and Sensing. <i>Journal of the American Chemical Society</i> , 2022, 144, 8827-8836.	6.6	39
66	Genetic modulation of metalloprotein electron transfer at bare gold. <i>Chemical Communications</i> , 2003, , 576-577.	2.2	37
67	Anion Sensing Porphyrin Functionalized Nanoparticles. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2008, 18, 32-40.	1.9	37
68	Surface-attached sensors for cation and anion recognition. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 1739-1748.	1.9	37
69	Mesoporous Silica Nanoparticles in Bioimaging. <i>Materials</i> , 2020, 13, 3795.	1.3	37
70	Impedance Electroanalysis in Diagnostics. <i>Analytical Chemistry</i> , 2015, 87, 944-950.	3.2	35
71	Quantum capacitance as a reagentless molecular sensing element. <i>Nanoscale</i> , 2017, 9, 15362-15370.	2.8	34
72	Graphene Oxide Interfaces in Serum Based Autoantibody Quantification. <i>Analytical Chemistry</i> , 2015, 87, 346-350.	3.2	33

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73	The application of electrochemical scanning probe microscopy to the interpretation of metalloprotein voltammetry. <i>Coordination Chemistry Reviews</i> , 2000, 200-202, 411-442.	9.5	32
74	Multiplexed Profiling of Extracellular Vesicles for Biomarker Development. <i>Nano-Micro Letters</i> , 2022, 14, 3.	14.4	31
75	Exploiting lanthanide luminescence in supramolecular assemblies. <i>Chemical Communications</i> , 2014, 50, 5678-5687.	2.2	30
76	Reversible redox modulation of a lanthanide emissive molecular film. <i>Chemical Communications</i> , 2015, 51, 6515-6517.	2.2	30
77	Sensing Nitrite through a Pseudoazurin-Nitrite Reductase Electron Transfer Relay. <i>ChemPhysChem</i> , 2005, 6, 1114-1120.	1.0	29
78	Enhanced Photocurrent in Engineered Bacteriorhodopsin Monolayer. <i>Journal of Physical Chemistry B</i> , 2012, 116, 683-689.	1.2	29
79	Optimized Diagnostic Assays Based on Redox Tagged Bioreceptive Interfaces. <i>Analytical Chemistry</i> , 2015, 87, 12137-12144.	3.2	29
80	The Mesoscopic Electrochemistry of Molecular Junctions. <i>Scientific Reports</i> , 2016, 6, 18400.	1.6	28
81	Force modulation and electrochemical gating of conductance in a cytochrome. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 374123.	0.7	27
82	Theoretical Analysis of the Relative Significance of Thermodynamic and Kinetic Dispersion in the dc and ac Voltammetry of Surface-Confined Molecules. <i>Langmuir</i> , 2015, 31, 4996-5004.	1.6	27
83	Enhanced voltammetric anion sensing at halogen and hydrogen bonding ferrocenyl SAMs. <i>Chemical Science</i> , 2021, 12, 2433-2440.	3.7	27
84	Anion induced displacement studies in naphthalene diimide containing interpenetrated and interlocked structures. <i>New Journal of Chemistry</i> , 2009, 33, 769.	1.4	26
85	Graphene-based protein biomarker detection. <i>Bioanalysis</i> , 2015, 7, 725-742.	0.6	26
86	Acyclic halogen and hydrogen bonding diquat-containing receptors for the electrochemical sensing of anions. <i>Polyhedron</i> , 2016, 116, 20-25.	1.0	26
87	Ultrasensitive Impedimetric Immunosensor for the Detection of C-Reactive Protein in Blood at Surface-Initiated-Reversible Addition-Fragmentation Chain Transfer Generated Poly(2-hydroxyethyl) Tj ETQq1 1 03784314 r3BT /Overlo	1.0	26
88	Anion templated assembly of an indolocarbazole containing pseudorotaxane on beads and silica nanoparticles. <i>New Journal of Chemistry</i> , 2009, 33, 760.	1.4	25
89	Synthesis of type II/type I CdTe/CdS/ZnS quantum dots and their use in cellular imaging. <i>Journal of Materials Chemistry</i> , 2009, 19, 8341.	6.7	25
90	High signal contrast gating with biomodified Gd doped mesoporous nanoparticles. <i>Chemical Communications</i> , 2013, 49, 60-62.	2.2	25

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91	Molecular Scale Conductance Photoswitching in Engineered Bacteriorhodopsin. Nano Letters, 2012, 12, 899-903.	4.5	24
92	Dy-DOTA integrated mesoporous silica nanoparticles as promising ultrahigh field magnetic resonance imaging contrast agents. Nanoscale, 2018, 10, 21041-21045.	2.8	24
93	Solvent Effects in Halogen and Hydrogen Bonding Mediated Electrochemical Anion Sensing in Aqueous Solution and at Interfaces. Chemistry - A European Journal, 2021, 27, 10201-10209.	1.7	24
94	Neutral redox-active hydrogen- and halogen-bonding [2]rotaxanes for the electrochemical sensing of chloride. Dalton Transactions, 2014, 43, 17274-17282.	1.6	23
95	Ratiometric oxygen sensing using lanthanide luminescent emitting interfaces. Chemical Communications, 2015, 51, 15944-15947.	2.2	23
96	Mapping the ionic fingerprints of molecular monolayers. Physical Chemistry Chemical Physics, 2017, 19, 15098-15109.	1.3	22
97	Molecularly Resolved Protein Electromechanical Properties. Journal of Physical Chemistry B, 2007, 111, 9062-9068.	1.2	20
98	Reversible Recruitment and Emission of DO3A-Derived Lanthanide Complexes at Ligating Molecular Films on Gold. Langmuir, 2013, 29, 1475-1482.	1.6	20
99	Magnetic Nanoparticles Supporting Bio-responsive T1/T2 Magnetic Resonance Imaging. Materials, 2019, 12, 4096.	1.3	19
100	HIGH RESOLUTION SCANNING FORCE MICROSCOPY OF CARDIAC MYOCYTES. Cell Biology International, 2001, 25, 1271-1277.	1.4	18
101	Molecular electron transfer of protein junctions characterised by conducting atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2005, 40, 189-194.	2.5	18
102	An impedimetric assay of $\alpha$ -synuclein autoantibodies in early stage Parkinson's disease. RSC Advances, 2014, 4, 58773-58777.	1.7	18
103	Interfacial sensing: surface assembled molecular receptors. Chemical Communications, 2005, , 3509.	2.2	16
104	Large Amplitude Conductance Gating in a Wired Redox Molecule. Journal of Physical Chemistry Letters, 2010, 1, 1541-1546.	2.1	16
105	Functional Molecular Interfaces for Impedance-Based Diagnostics. Annual Review of Analytical Chemistry, 2020, 13, 183-200.	2.8	15
106	The nanoscopic principles of capacitive ion sensing interfaces. Physical Chemistry Chemical Physics, 2020, 22, 3770-3774.	1.3	15
107	Mechanistic studies of AFM probe-driven Suzuki and Heck molecular coupling. Nanotechnology, 2010, 21, 265302.	1.3	13
108	Characterising the biosensing interface. Analytica Chimica Acta, 2022, 1216, 339759.	2.6	13

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109	Tunnelling conductance of vectorial porphyrin monolayers. <i>Journal of Materials Chemistry</i> , 2008, 18, 3109.	6.7	12
110	Engineered Bacteriorhodopsin: A Molecular Scale Potential Switch. <i>Chemistry - A European Journal</i> , 2012, 18, 5632-5636.	1.7	12
111	Engineering Cytochrome-c Modified Silica Nanoparticles To Induce Programmed Cell Death. <i>Chemistry - A European Journal</i> , 2013, 19, 17891-17898.	1.7	11
112	Continuous and Polarization-Tuned Redox Capacitive Anion Sensing at Electroactive Interfaces. <i>Journal of the American Chemical Society</i> , 2021, 143, 19199-19206.	6.6	11
113	Homogeneous functional self-assembled monolayers: Faradaic impedance baseline signal drift suppression for high-sensitivity immunosensing of C-reactive protein. <i>Journal of Electroanalytical Chemistry</i> , 2020, 856, 113675.	1.9	10
114	Real-time Voltammetric Anion Sensing Under Flow**. <i>Chemistry - A European Journal</i> , 2021, 27, 17700-17706.	1.7	10
115	Halogen Bonding Tetraphenylethene Anion Receptors: Anion-induced Emissive Aggregates and Photoswitchable Recognition. <i>Angewandte Chemie</i> , 2021, 133, 19591-19599.	1.6	9
116	A Facile Measurement of Heterogeneous Electron Transfer Kinetics. <i>Analytical Chemistry</i> , 2013, 85, 10920-10926.	3.2	6
117	Ligation driven <sup>19</sup> F relaxation enhancement in self-assembled Ln(III) complexes. <i>Chemical Communications</i> , 2015, 51, 2918-2920.	2.2	6
118	Water gated contrast switching with polymer-silica hybrid nanoparticles. <i>Chemical Communications</i> , 2019, 55, 8540-8543.	2.2	6
119	Introducing polymer conductance in diagnostically relevant transduction. <i>Biosensors and Bioelectronics</i> , 2021, 172, 112705.	5.3	6
120	Open Circuit Potential as a Tool for the Assessment of Binding Kinetics and Reagentless Protein Quantitation. <i>Analytical Chemistry</i> , 2021, 93, 14748-14754.	3.2	6
121	A Quantification of Target Protein Biomarkers in Complex Media by Faradaic Shotgun Tagging. <i>Analytical Chemistry</i> , 2022, 94, 2375-2382.	3.2	5
122	Functionalization of Single-Wall Carbon Nanotubes with Quantum Dots and Proteins. <i>AIP Conference Proceedings</i> , 2002, , .	0.3	0
123	Chemical and Biochemical Sensing with Modified Single Walled Carbon Nanotubes. <i>ChemInform</i> , 2003, 34, no.	0.1	0
124	Applying Atomic Force Microscopy to Studies in Cardiac Physiology. , 2004, 242, 161-178.		0
125	EXPLORING TUNNEL TRANSPORT THROUGH PROTEIN AT THE MOLECULAR LEVEL. <i>Series on Iraq War and Its Consequences</i> , 2007, , 167-193.	0.1	0
126	Promoting high T2 contrast in Dy-doped MSNs through Curie effects. <i>Journal of Materials Chemistry B</i> , 2022, 10, 302-305.	2.9	0