

Jacqueline K Barton

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232
ext. papers

27,602
ext. citations

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L-index

#	Paper	IF	Citations
230	Electrochemical DNA sensors. <i>Nature Biotechnology</i> , 2003 , 21, 1192-9	44.5	1851
229	Recognition and reaction of metallointercalators with DNA. <i>Chemical Reviews</i> , 1999 , 99, 2777-96	68.1	1698
228	A molecular light switch for DNA: Ru(bpy) ₂ (dppz) ₂ ⁺ . <i>Journal of the American Chemical Society</i> , 1990 , 112, 4960-4962	16.4	1226
227	Tris(phenanthroline)ruthenium(II): stereoselectivity in binding to DNA. <i>Journal of the American Chemical Society</i> , 1984 , 106, 2172-2176	16.4	857
226	Electron transfer between bases in double helical DNA. <i>Science</i> , 1999 , 283, 375-81	33.3	793
225	Oxidative DNA damage through long-range electron transfer. <i>Nature</i> , 1996 , 382, 731-5	50.4	773
224	Metallo-intercalators and metallo-insertors. <i>Chemical Communications</i> , 2007 , 4565-79	5.8	689
223	Mechanisms for DNA charge transport. <i>Chemical Reviews</i> , 2010 , 110, 1642-62	68.1	618
222	Mutation detection by electrocatalysis at DNA-modified electrodes. <i>Nature Biotechnology</i> , 2000 , 18, 1096-100	44.5	577
221	Novel dipyrrophenazine complexes of ruthenium(II): exploring luminescent reporters of DNA. <i>Journal of the American Chemical Society</i> , 1992 , 114, 5919-5925	16.4	543
220	Photophysics of ruthenium complexes bound to double helical DNA. <i>Journal of the American Chemical Society</i> , 1985 , 107, 5518-5523	16.4	543
219	Electrochemistry of methylene blue bound to a DNA-modified electrode. <i>Bioconjugate Chemistry</i> , 1997 , 8, 31-7	6.3	407
218	Oxidative thymine dimer repair in the DNA helix. <i>Science</i> , 1997 , 275, 1465-8	33.3	405
217	Characterization of dipyrrophenazine complexes of ruthenium(II): the light switch effect as a function of nucleic acid sequence and conformation. <i>Biochemistry</i> , 1992 , 31, 10809-16	3.2	403
216	Long-range oxidative damage to DNA: effects of distance and sequence. <i>Chemistry and Biology</i> , 1999 , 6, 85-97		369
215	Long-Range Electron Transfer through DNA Films. <i>Angewandte Chemie - International Edition</i> , 1999 , 38, 941-945	16.4	368
214	DNA photocleavage by phenanthrenequinone diimine complexes of rhodium(III): shape-selective recognition and reaction. <i>Journal of the American Chemical Society</i> , 1992 , 114, 2303-2312	16.4	344

213	Conductivity of a single DNA duplex bridging a carbon nanotube gap. <i>Nature Nanotechnology</i> , 2008 , 3, 163-7	28.7	287
212	Mechanism of cellular uptake of a ruthenium polypyridyl complex. <i>Biochemistry</i> , 2008 , 47, 11711-6	3.2	274
211	The path for metal complexes to a DNA target. <i>Chemical Communications</i> , 2013 , 49, 3617-30	5.8	272
210	DNA charge transport over 34 nm. <i>Nature Chemistry</i> , 2011 , 3, 228-33	17.6	268
209	Orienting DNA Helices on Gold Using Applied Electric Fields. <i>Langmuir</i> , 1998 , 14, 6781-6784	4	266
208	Charge Transfer through the DNA Base Stack. <i>Angewandte Chemie International Edition in English</i> , 1997 , 36, 2714-2730		259
207	Crystal structure of $[Ru(bpy)_2ppz]^+$ bound to mismatched DNA reveals side-by-side metalloinsertion and intercalation. <i>Nature Chemistry</i> , 2012 , 4, 615-20	17.6	234
206	Fluorescein redirects a ruthenium-octaarginine conjugate to the nucleus. <i>Journal of the American Chemical Society</i> , 2009 , 131, 8738-9	16.4	231
205	Photoinduced Electron Transfer in Ethidium-Modified DNA Duplexes: Dependence on Distance and Base Stacking. <i>Journal of the American Chemical Society</i> , 1997 , 119, 9861-9870	16.4	219
204	Oxidative damage by ruthenium complexes containing the dipyridophenazine ligand or its derivatives: a focus on intercalation. <i>Inorganic Chemistry</i> , 2002 , 41, 1966-74	5.1	207
203	An electrical probe of protein-DNA interactions on DNA-modified surfaces. <i>Nature Biotechnology</i> , 2002 , 20, 282-6	44.5	204
202	DNA-mediated charge transport for DNA repair. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 12543-7	11.5	194
201	Charge transport in DNA. <i>Current Opinion in Structural Biology</i> , 2002 , 12, 320-9	8.1	193
200	DNA charge transport: conformationally gated hopping through stacked domains. <i>Journal of the American Chemical Society</i> , 2004 , 126, 11471-83	16.4	190
199	Long-range oxidation of guanine by Ru(III) in duplex DNA. <i>Chemistry and Biology</i> , 1997 , 4, 389-400		167
198	Sensitivity of DNA-Mediated Electron Transfer to the Intervening π Stack: A Probe for the Integrity of the DNA Base Stack. <i>Journal of the American Chemical Society</i> , 1997 , 119, 5045-5046	16.4	154
197	DNA-bound redox activity of DNA repair glycosylases containing [4Fe-4S] clusters. <i>Biochemistry</i> , 2005 , 44, 8397-407	3.2	150
196	Charge transport through a molecular π stack: double helical DNA. <i>Chemical Physics</i> , 2002 , 281, 409-428	2.3	144

195	Evidence of Electron Transfer from Peptides to DNA: Oxidation of DNA-Bound Tryptophan Using the Flash-Quench Technique. <i>Journal of the American Chemical Society</i> , 2000 , 122, 1-7	16.4	141
194	A versatile mismatch recognition agent: specific cleavage of a plasmid DNA at a single base mispair. <i>Biochemistry</i> , 1999 , 38, 4655-62	3.2	141
193	Influence of intervening mismatches on long-range guanine oxidation in DNA duplexes. <i>Journal of the American Chemical Society</i> , 2001 , 123, 8649-56	16.4	140
192	DNA-mediated charge transport in redox sensing and signaling. <i>Journal of the American Chemical Society</i> , 2010 , 132, 891-905	16.4	138
191	DNA-mediated electrochemistry. <i>Bioconjugate Chemistry</i> , 2008 , 19, 2285-96	6.3	135
190	Ultrafast dynamics in DNA-mediated electron transfer: base gating and the role of temperature. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 5896-900	16.4	127
189	Metal Complexes for DNA-Mediated Charge Transport. <i>Coordination Chemistry Reviews</i> , 2011 , 255, 619-634	16.4	126
188	DNA-mediated electron transfer from a modified base to ethidium: pi-stacking as modulator of reactivity. <i>Chemistry and Biology</i> , 1998 , 5, 413-25		123
187	Os(phen) ₂ dppz ²⁺ in Photoinduced DNA-Mediated Electron Transfer Reactions. <i>Journal of the American Chemical Society</i> , 1996 , 118, 5236-5244	16.4	120
186	Recognition of DNA Base Mismatches by a Rhodium Intercalator. <i>Journal of the American Chemical Society</i> , 1997 , 119, 12986-12987	16.4	117
185	[Ru(bpy) ₂ (L)]Cl ₂ : luminescent metal complexes that bind DNA base mismatches. <i>Inorganic Chemistry</i> , 2004 , 43, 4570-8	5.1	116
184	Protein-DNA charge transport: redox activation of a DNA repair protein by guanine radical. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3546-51	11.5	112
183	Protein-Modulated DNA Electron Transfer. <i>Journal of the American Chemical Society</i> , 1999 , 121, 5615-5616	16.4	109
182	Paradigms, supermolecules, electron transfer and chemistry at a distance. What's the problem? The science or the paradigm?. <i>Journal of Biological Inorganic Chemistry</i> , 1998 , 3, 201-209	3.7	108
181	Sensitivity of Ru(bpy) ₂ dppz ²⁺ luminescence to DNA defects. <i>Inorganic Chemistry</i> , 2009 , 48, 5392-7	5.1	107
180	Biological contexts for DNA charge transport chemistry. <i>Current Opinion in Chemical Biology</i> , 2008 , 12, 229-37	9.7	106
179	Insights into finding a mismatch through the structure of a mispaired DNA bound by a rhodium intercalator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 429-34	11.5	103
178	Electrochemical detection of lesions in DNA. <i>Bioconjugate Chemistry</i> , 2005 , 16, 312-21	6.3	103

177	Targeting a ruthenium complex to the nucleus with short peptides. <i>Bioorganic and Medicinal Chemistry</i> , 2010 , 18, 3564-9	3.4	102
176	Redox signaling between DNA repair proteins for efficient lesion detection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 15237-42	11.5	101
175	Variations in DNA Charge Transport with Nucleotide Composition and Sequence. <i>Journal of the American Chemical Society</i> , 2000 , 122, 9048-9049	16.4	101
174	Electron transfer rates in DNA films as a function of tether length. <i>Journal of the American Chemical Society</i> , 2004 , 126, 15010-1	16.4	100
173	DNA repair: models for damage and mismatch recognition. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2000 , 447, 49-72	3.3	100
172	2-Aminopurine: a probe of structural dynamics and charge transfer in DNA and DNA:RNA hybrids. <i>Journal of the American Chemical Society</i> , 2002 , 124, 13053-66	16.4	98
171	DNA Charge Transport: from Chemical Principles to the Cell. <i>Cell Chemical Biology</i> , 2016 , 23, 183-197	8.2	95
170	Electrochemical assay for the signal-on detection of human DNA methyltransferase activity. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16632-40	16.4	93
169	DNA-mediated charge transport requires conformational motion of the DNA bases: elimination of charge transport in rigid glasses at 77 K. <i>Journal of the American Chemical Society</i> , 2004 , 126, 13234-5	16.4	93
168	Direct chemical evidence for charge transfer between photoexcited 2-aminopurine and guanine in duplex DNA. <i>Journal of the American Chemical Society</i> , 2004 , 126, 1316-7	16.4	92
167	Intercalative Stacking: A Critical Feature of DNA Charge-Transport Electrochemistry. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 11805-11812	3.4	92
166	Structure of a photoactive rhodium complex intercalated into DNA. <i>Nature Structural Biology</i> , 2000 , 7, 117-21		92
165	DNA electrochemistry with tethered methylene blue. <i>Langmuir</i> , 2012 , 28, 7063-70	4	91
164	DNA charge transport for sensing and signaling. <i>Accounts of Chemical Research</i> , 2012 , 45, 1792-800	24.3	90
163	DNA electrochemistry through the base pairs not the sugar-phosphate backbone. <i>Journal of the American Chemical Society</i> , 2005 , 127, 10160-1	16.4	90
162	Oxidative charge transfer To repair thymine dimers and damage guanine bases in DNA assemblies containing tethered metallointercalators. <i>Biochemistry</i> , 1998 , 37, 6491-502	3.2	90
161	Oxidative charge transport through DNA in nucleosome core particles. <i>Chemistry and Biology</i> , 2002 , 9, 403-15		89
160	Evidence for DNA charge transport in the nucleus. <i>Biochemistry</i> , 2001 , 40, 12465-71	3.2	88

- 159 DNA-mediated photoelectron transfer reactions. *Journal of the American Chemical Society*, **1986**, 108, 6391-6393 16.4 87
- 158 Direct observation of radical intermediates in protein-dependent DNA charge transport. *Journal of the American Chemical Society*, **2001**, 123, 4400-7 16.4 86
- 157 Long-range electron and hole transport through DNA with tethered cyclometalated iridium(III) complexes. *Journal of the American Chemical Society*, **2007**, 129, 14733-8 16.4 85
- 156 Recognition of base mismatches in DNA by 5,6-chrysenequinone diimine complexes of rhodium(III): a proposed mechanism for preferential binding in destabilized regions of the double helix. *Biochemistry*, **2000**, 39, 6176-82 3.2 83
- 155 The [4Fe4S] cluster of human DNA primase functions as a redox switch using DNA charge transport. *Science*, **2017**, 355, 33.3 82
- 154 A rhodium(III) complex for high-affinity DNA base-pair mismatch recognition. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 3737-42 11.5 82
- 153 Helix-Dependent Spin Filtering through the DNA Duplex. *Journal of the American Chemical Society*, **2016**, 138, 15551-15554 16.4 80
- 152 DNA charge transport as a first step in coordinating the detection of lesions by repair proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 1856-61 11.5 80
- 151 Effects of the photooxidant on DNA-mediated charge transport. *Journal of the American Chemical Society*, **2004**, 126, 8148-58 16.4 80
- 150 Ruthenium complexes as luminescent reporters of DNA. *Methods in Enzymology*, **1993**, 226, 576-94 1.7 80
- 149 Electrical detection of TATA binding protein at DNA-modified microelectrodes. *Journal of the American Chemical Society*, **2008**, 130, 2924-5 16.4 76
- 148 Long-range and short-range oxidative damage to DNA: photoinduced damage to guanines in ethidium-DNA assemblies. *Biochemistry*, **1998**, 37, 15933-40 3.2 74
- 147 Electrochemistry using self-assembled DNA monolayers on highly oriented pyrolytic graphite. *Langmuir*, **2006**, 22, 7917-22 4 73
- 146 Targeting abasic sites and single base bulges in DNA with metalloinsertors. *Journal of the American Chemical Society*, **2008**, 130, 7530-1 16.4 72
- 145 Sequence dependence of charge transport through DNA domains. *Journal of the American Chemical Society*, **2005**, 127, 17445-52 16.4 72
- 144 Long-range oxidative damage to cytosines in duplex DNA. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 17914-9 11.5 72
- 143 Multiplexed DNA-modified electrodes. *Journal of the American Chemical Society*, **2010**, 132, 2769-74 16.4 71
- 142 Charge migration along the DNA duplex: hole versus electron transport. *Journal of the American Chemical Society*, **2008**, 130, 1152-3 16.4 71

141	Electron transfer between metallointercalators bound to DNA: Spectral identification of the transient intermediate. <i>Journal of the American Chemical Society</i> , 1995 , 117, 2375-2376	16.4	71
140	Sequence-specific recognition of DNA by phenanthrenequinone diimine complexes of rhodium(III): importance of steric and van der Waals interactions. <i>Biochemistry</i> , 1994 , 33, 12100-8	3.2	71
139	How different DNA-binding proteins affect long-range oxidative damage to DNA. <i>Biochemistry</i> , 2001 , 40, 5556-64	3.2	70
138	Luminescent properties of ruthenium(II) complexes with sterically expansive ligands bound to DNA defects. <i>Inorganic Chemistry</i> , 2012 , 51, 12511-20	5.1	69
137	Synthesis and characterization of iridium(III) cyclometalated complexes with oligonucleotides: insights into redox reactions with DNA. <i>Inorganic Chemistry</i> , 2007 , 46, 10187-99	5.1	67
136	Direct electrochemistry of endonuclease III in the presence and absence of DNA. <i>Journal of the American Chemical Society</i> , 2006 , 128, 12082-3	16.4	67
135	Cell-selective biological activity of rhodium metalloinsertors correlates with subcellular localization. <i>Journal of the American Chemical Society</i> , 2012 , 134, 19223-33	16.4	66
134	¹ H NMR determination of base-pair lifetimes in oligonucleotides containing single base mismatches. <i>Nucleic Acids Research</i> , 2002 , 30, 4740-50	20.1	66
133	Effects of strand and directional asymmetry on base-base coupling and charge transfer in double-helical DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 16543-50	11.5	66
132	A bulky rhodium complex bound to an adenosine-adenosine DNA mismatch: general architecture of the metalloinsertion binding mode. <i>Biochemistry</i> , 2009 , 48, 4247-53	3.2	65
131	DNA mismatch binding and antiproliferative activity of rhodium metalloinsertors. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2359-66	16.4	64
130	DNA electrochemistry as a probe of base pair stacking in A-, B-, and Z-form DNA. <i>Bioconjugate Chemistry</i> , 2003 , 14, 1140-7	6.3	64
129	Reduction of Ferricyanide by Methylene Blue at a DNA-Modified Rotating-Disk Electrode. <i>Langmuir</i> , 2003 , 19, 9255-9259	4	63
128	[Ru(Me4phen)2dppz](2+), a Light Switch for DNA Mismatches. <i>Journal of the American Chemical Society</i> , 2016 , 138, 5020-3	16.4	63
127	Synthesis and characterization of physical, electronic, and photochemical aspects of 9,10-phenanthrenequinonediimine complexes of ruthenium(II) and rhodium(III). <i>Inorganic Chemistry</i> , 1990 , 29, 4487-4495	5.1	61
126	Insertion of a bulky rhodium complex into a DNA cytosine-cytosine mismatch: an NMR solution study. <i>Journal of the American Chemical Society</i> , 2007 , 129, 12287-95	16.4	58
125	DNA binding shifts the redox potential of the transcription factor SoxR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 3684-9	11.5	57
124	Oxidative Repair of a Thymine Dimer in DNA from a Distance by a Covalently Linked Organic Intercalator. <i>Journal of the American Chemical Society</i> , 2000 , 122, 8603-8611	16.4	57

123	Coupling into the base pair stack is necessary for DNA-mediated electrochemistry. <i>Bioconjugate Chemistry</i> , 2007 , 18, 1434-41	6.3	56
122	DNA mismatch-specific targeting and hypersensitivity of mismatch-repair-deficient cells to bulky rhodium(III) intercalators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 15359-63	11.5	56
121	Reductive and oxidative DNA damage by photoactive platinum(II) intercalators. <i>Inorganic Chemistry</i> , 2005 , 44, 7970-80	5.1	56
120	Morphology of 15-mer Duplexes Tethered to Au(111) Probed Using Scanning Probe Microscopy. <i>Langmuir</i> , 2001 , 17, 5727-5730	4	56
119	Long-range guanine oxidation in DNA restriction fragments by a triplex-directed naphthalene diimide intercalator. <i>Biochemistry</i> , 2000 , 39, 6190-9	3.2	55
118	Solution, surface, and single molecule platforms for the study of DNA-mediated charge transport. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 13754-71	3.6	54
117	Label-free electrochemical detection of human methyltransferase from tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 14985-9	11.5	53
116	Recognition of abasic sites and single base bulges in DNA by a metalloinsertor. <i>Biochemistry</i> , 2009 , 48, 839-49	3.2	53
115	Distance-independent DNA charge transport across an adenine tract. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 5731-3	16.4	53
114	Electrically monitoring DNA repair by photolyase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 10788-92	11.5	53
113	Extracellular DNA Promotes Efficient Extracellular Electron Transfer by Pyocyanin in <i>Pseudomonas aeruginosa</i> Biofilms. <i>Cell</i> , 2020 , 182, 919-932.e19	56.2	53
112	ATP-stimulated, DNA-mediated redox signaling by XPD, a DNA repair and transcription helicase. <i>Journal of the American Chemical Society</i> , 2011 , 133, 16378-81	16.4	52
111	Synthesis of metallointercalator-DNA conjugates on a solid support. <i>Bioconjugate Chemistry</i> , 1999 , 10, 1122-30	6.3	52
110	In situ scanning tunneling microscopy of DNA-modified gold surfaces: bias and mismatch dependence. <i>Journal of the American Chemical Society</i> , 2003 , 125, 14964-5	16.4	51
109	Electrochemical patterning and detection of DNA arrays on a two-electrode platform. <i>Journal of the American Chemical Society</i> , 2013 , 135, 19099-102	16.4	50
108	A mismatch-selective bifunctional rhodium-Oregon Green conjugate: a fluorescent probe for mismatched DNA. <i>Journal of the American Chemical Society</i> , 2006 , 128, 5654-5	16.4	50
107	Functionalized Rhodium Intercalators for DNA Recognition. <i>Inorganic Chemistry</i> , 1998 , 37, 6874-6883	5.1	50
106	High resolution footprinting of EcoRI and distamycin with Rh(phi)2(bpy)3+, a new photofootprinting reagent. <i>Nucleic Acids Research</i> , 1989 , 17, 10259-79	20.1	50

105	DNA charge transport within the cell. <i>Biochemistry</i> , 2015 , 54, 962-73	3.2	49
104	Charge photoinjection in intercalated and covalently bound [Re(CO) ₃ (dppz)(py)] ⁺ -DNA constructs monitored by time-resolved visible and infrared spectroscopy. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13718-30	16.4	49
103	DNA base mismatch detection with bulky rhodium intercalators: synthesis and applications. <i>Nature Protocols</i> , 2007 , 2, 357-71	18.8	49
102	DNA-Mediated Charge Transport Chemistry and Biology. <i>Topics in Current Chemistry</i> , 2004 , 67-115		49
101	DNA-mediated signaling by proteins with 4Fe-4S clusters is necessary for genomic integrity. <i>Journal of the American Chemical Society</i> , 2014 , 136, 6470-8	16.4	48
100	Single-step charge transport through DNA over long distances. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3863-8	16.4	48
99	DNA mediated charge transport: characterization of a DNA radical localized at an artificial nucleic acid base. <i>Journal of the American Chemical Society</i> , 2002 , 124, 9083-92	16.4	48
98	Selective cytotoxicity of rhodium metalloinsertors in mismatch repair-deficient cells. <i>Biochemistry</i> , 2011 , 50, 10919-28	3.2	46
97	DNA-mediated redox signaling for transcriptional activation of SoxR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 13164-8	11.5	46
96	Electron trap for DNA-bound repair enzymes: a strategy for DNA-mediated signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 3610-4	11.5	46
95	A Family of Rhodium Complexes with Selective Toxicity toward Mismatch Repair-Deficient Cancers. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5612-5624	16.4	45
94	Tuning the DNA reactivity of cis-platinum: conjugation to a mismatch-specific metallointercalator. <i>Journal of the American Chemical Society</i> , 2004 , 126, 14728-9	16.4	45
93	Sequence-specific DNA binding by a rhodium complex: recognition based on sequence-dependent twistability. <i>Biochemistry</i> , 1995 , 34, 8227-34	3.2	44
92	Assembly of DNA recognition elements on an octahedral rhodium intercalator: predictive recognition of 5RTGCA-3Rby .DELTA.-[Rh(R,R)-Me2trien]phi]3+. <i>Journal of the American Chemical Society</i> , 1993 , 115, 12577-12578	16.4	44
91	Transducing methyltransferase activity into electrical signals in a carbon nanotube-DNA device(). <i>Chemical Science</i> , 2012 , 3, 62-65	9.4	43
90	DNA repair glycosylases with a [4Fe-4S] cluster: a redox cofactor for DNA-mediated charge transport?. <i>Journal of Inorganic Biochemistry</i> , 2007 , 101, 1913-21	4.2	43
89	Ping-pong electron transfer through DNA. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 9067-70	16.4	43
88	An electrochemical probe of DNA stacking in an antisense oligonucleotide containing a C3Rendo-locked sugar. <i>Angewandte Chemie - International Edition</i> , 2002 , 41, 3402-5	16.4	43

87	Rapid radical formation by DNA charge transport through sequences lacking intervening guanines. <i>Journal of the American Chemical Society</i> , 2003 , 125, 6640-1	16.4	43
86	Long-range oxidative damage in DNA/RNA duplexes. <i>Biochemistry</i> , 2001 , 40, 8727-37	3.2	43
85	A role for DNA-mediated charge transport in regulating p53: Oxidation of the DNA-bound protein from a distance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18907-12	11.5	42
84	Perturbing the DNA sequence selectivity of metallointercalator-peptide conjugates by single amino acid modification. <i>Biochemistry</i> , 1999 , 38, 10042-51	3.2	40
83	Charge equilibration between two distinct sites in double helical DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 10511-6	11.5	39
82	Robust charge transport in DNA double crossover assemblies. <i>Chemistry and Biology</i> , 2000 , 7, 475-81		39
81	Site-specific inhibition of transcription factor binding to DNA by a metallointercalator. <i>Biochemistry</i> , 1999 , 38, 5155-63	3.2	39
80	Sequence-selective DNA recognition and photocleavage: a comparison of enantiomers of Rh(en) ₂ phi ₃ ⁺ . <i>Biochemistry</i> , 1995 , 34, 15037-48	3.2	39
79	Electron transfer between metal complexes bound to DNA: variations in sequence, donor, and metal binding mode. <i>Inorganica Chimica Acta</i> , 2000 , 297, 88-97	2.7	38
78	A Ruthenium(II) Complex as a Luminescent Probe for DNA Mismatches and Abasic Sites. <i>Inorganic Chemistry</i> , 2017 , 56, 8381-8389	5.1	37
77	Mutants of the base excision repair glycosylase, endonuclease III: DNA charge transport as a first step in lesion detection. <i>Biochemistry</i> , 2011 , 50, 6133-45	3.2	37
76	Recognition of DNA base pair mismatches by a cyclometalated Rh(III) intercalator. <i>Inorganic Chemistry</i> , 2000 , 39, 4942-9	5.1	37
75	Scanning electrochemical microscopy of DNA monolayers modified with Nile Blue. <i>Langmuir</i> , 2008 , 24, 14282-8	4	36
74	Bifunctional rhodium intercalator conjugates as mismatch-directing DNA alkylating agents. <i>Journal of the American Chemical Society</i> , 2004 , 126, 8630-1	16.4	35
73	DNA-mediated charge transport as a probe of MutY/DNA interaction. <i>Biochemistry</i> , 2002 , 41, 8464-70	3.2	35
72	Weitreichender Elektronentransfer durch DNA-Filme. <i>Angewandte Chemie</i> , 1999 , 111, 991-996	3.6	35
71	Sensing DNA through DNA Charge Transport. <i>ACS Chemical Biology</i> , 2018 , 13, 1799-1809	4.9	35
70	Multiplexed electrochemistry of DNA-bound metalloproteins. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11869-78	16.4	34

69	Redmond Red as a redox probe for the DNA-mediated detection of abasic sites. <i>Bioconjugate Chemistry</i> , 2008 , 19, 2110-2	6.3	33
68	A Reinvestigation by Circular Dichroism and NMR: Ruthenium(II) and Rhodium(III) Metallointercalators Do Not Bind Cooperatively to DNA. <i>Inorganic Chemistry</i> , 1998 , 37, 5198-5210	5.1	32
67	An unusual ligand coordination gives rise to a new family of rhodium metalloinsertors with improved selectivity and potency. <i>Journal of the American Chemical Society</i> , 2014 , 136, 14160-72	16.4	31
66	Differential ionic permeation of DNA-modified electrodes. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 663-8	3.4	30
65	The Oxidation State of [4Fe4S] Clusters Modulates the DNA-Binding Affinity of DNA Repair Proteins. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12784-12792	16.4	29
64	DNA sensing by electrocatalysis with hemoglobin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 11528-33	11.5	29
63	Electrochemistry of the [4Fe4S] Cluster in Base Excision Repair Proteins: Tuning the Redox Potential with DNA. <i>Langmuir</i> , 2017 , 33, 2523-2530	4	28
62	Redox Chemistry in the Genome: Emergence of the [4Fe4S] Cofactor in Repair and Replication. <i>Annual Review of Biochemistry</i> , 2019 , 88, 163-190	29.1	28
61	A Redox Role for the [4Fe4S] Cluster of Yeast DNA Polymerase β . <i>Journal of the American Chemical Society</i> , 2017 , 139, 18339-18348	16.4	28
60	DNA-modified electrodes fabricated using copper-free click chemistry for enhanced protein detection. <i>Langmuir</i> , 2013 , 29, 16141-9	4	28
59	Binding of Ru(bpy) ₂ (eilatrin) ₂ ²⁺ to matched and mismatched DNA. <i>Inorganic Chemistry</i> , 2008 , 47, 6452-7	5.1	28
58	Differential DNA recognition by the enantiomers of 1-Rh(MGP) ₂ phi: a combination of shape selection and direct readout. <i>Biochemistry</i> , 1998 , 37, 16093-105	3.2	28
57	Targeting DNA Mismatches with Rhodium Metalloinsertors. <i>Inorganica Chimica Acta</i> , 2016 , 452, 3-11	2.7	27
56	A Rhodium-Cyanine Fluorescent Probe: Detection and Signaling of Mismatches in DNA. <i>Journal of the American Chemical Society</i> , 2017 , 139, 17301-17304	16.4	27
55	DNA-mediated electron transfer in naphthalene-modified oligonucleotides. <i>Journal of Organic Chemistry</i> , 2010 , 75, 2423-8	4.2	27
54	DNA oxidation by charge transport in mitochondria. <i>Biochemistry</i> , 2008 , 47, 1511-7	3.2	27
53	DNA-mediated electrochemistry of disulfides on graphite. <i>Journal of the American Chemical Society</i> , 2007 , 129, 6074-5	16.4	27
52	Back-electron transfer suppresses the periodic length dependence of DNA-mediated charge transport across adenine tracts. <i>Journal of the American Chemical Society</i> , 2008 , 130, 15150-6	16.4	26

51	Rh(phen) ₂ phi ₃ ⁺ as a shape-selective probe of triple helices. <i>Biochemistry</i> , 1998 , 37, 9138-46	3.2	26
50	Electrocatalysis in DNA Sensors. <i>Polyhedron</i> , 2014 , 84, 150-159	2.7	25
49	Intraduplex DNA-mediated electrochemistry of covalently tethered redox-active reporters. <i>Journal of the American Chemical Society</i> , 2013 , 135, 14944-7	16.4	25
48	The effect of varied ion distributions on long-range DNA charge transport. <i>Journal of the American Chemical Society</i> , 2002 , 124, 1840-1	16.4	25
47	Targeted Chemotherapy with Metal Complexes. <i>Comments on Inorganic Chemistry</i> , 2014 , 34, 114-123	3.9	24
46	DNA charge transport leading to disulfide bond formation. <i>Journal of the American Chemical Society</i> , 2005 , 127, 12204-5	16.4	24
45	Ultrafast Dynamics in DNA-Mediated Electron Transfer: Base Gating and the Role of Temperature. <i>Angewandte Chemie</i> , 2003 , 115, 6076-6080	3.6	24
44	A Multiplexed, Two-Electrode Platform for Biosensing Based on DNA-Mediated Charge Transport. <i>Langmuir</i> , 2015 , 31, 6554-62	4	23
43	DNA protection by the bacterial ferritin Dps via DNA charge transport. <i>Journal of the American Chemical Society</i> , 2013 , 135, 15726-9	16.4	21
42	Effective Distance for DNA-Mediated Charge Transport between Repair Proteins. <i>ACS Central Science</i> , 2019 , 5, 65-72	16.8	21
41	DNA Electrochemistry Shows DNMT1 Methyltransferase Hyperactivity in Colorectal Tumors. <i>Chemistry and Biology</i> , 2015 , 22, 938-45		19
40	Nitric Oxide Modulates Endonuclease III Redox Activity by a 800 mV Negative Shift upon [FeS] Cluster Nitrosylation. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11800-11810	16.4	18
39	Sulfur K-Edge XAS Studies of the Effect of DNA Binding on the [FeS] Site in EndoIII and MutY. <i>Journal of the American Chemical Society</i> , 2017 , 139, 11434-11442	16.4	17
38	DNA strand cleavage near a CC mismatch directed by a metalloinsertor. <i>Inorganic Chemistry</i> , 2007 , 46, 9528-30	5.1	17
37	A monofunctional platinum complex coordinated to a rhodium metalloinsertor selectively binds mismatched DNA in the minor groove. <i>Inorganic Chemistry</i> , 2015 , 54, 9626-36	5.1	16
36	DNA-mediated oxidation of p53. <i>Biochemistry</i> , 2014 , 53, 3467-75	3.2	15
35	Construction and application of a Rh-Pt DNA metalloinsertor conjugate. <i>Inorganic Chemistry</i> , 2014 , 53, 7812-4	5.1	14
34	Using metal complex reduced states to monitor the oxidation of DNA. <i>Inorganic Chemistry</i> , 2011 , 50, 12034-44	5.1	14

33	A human MUTYH variant linking colonic polyposis to redox degradation of the [4Fe4S] cluster. <i>Nature Chemistry</i> , 2018 , 10, 873-880	17.6	13
32	Redox Signaling through DNA. <i>Israel Journal of Chemistry</i> , 2016 , 56, 705-723	3.4	13
31	Biological effects of simple changes in functionality on rhodium metalloinsertors. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013 , 371, 20120117	3	12
30	Common mitochondrial DNA mutations generated through DNA-mediated charge transport. <i>Biochemistry</i> , 2009 , 48, 660-6	3.2	12
29	An inducible, isogenic cancer cell line system for targeting the state of mismatch repair deficiency. <i>PLoS ONE</i> , 2013 , 8, e78726	3.7	12
28	A Compass at Weak Magnetic Fields Using Thymine Dimer Repair. <i>ACS Central Science</i> , 2018 , 4, 405-412	16.8	11
27	Oxidation by DNA charge transport damages conserved sequence block II, a regulatory element in mitochondrial DNA. <i>Biochemistry</i> , 2007 , 46, 2805-11	3.2	11
26	Yeast require redox switching in DNA primase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 13186-13191	11.5	10
25	Characterization of the DNA-Mediated Oxidation of Dps, A Bacterial Ferritin. <i>Journal of the American Chemical Society</i> , 2016 , 138, 11290-8	16.4	9
24	Luminescence quenching by DNA-bound viologens: effect of reactant identity on efficiency and dynamics of electron transfer in DNA. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2000 , 58, 72-9	6.7	9
23	Metallointercalators as Probes of the DNA EWay. <i>Advances in Chemistry Series</i> , 1996 , 449-469		9
22	Rhodium metalloinsertor binding generates a lesion with selective cytotoxicity for mismatch repair-deficient cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 6948-6953	11.5	8
21	Spectral and Structural Characterization of 5,6-Chrysenequinone Diimine Complexes of Rhodium(III): Evidence for a pH-Dependent Ligand Conformational Switch. <i>Inorganic Chemistry</i> , 1999 , 38, 6218-6224	5.1	8
20	In vivo anticancer activity of a rhodium metalloinsertor in the HCT116 xenograft tumor model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 17535-17542	11.5	8
19	Cell-Selective Cytotoxicity of a Fluorescent Rhodium Metalloinsertor Conjugate Results from Irreversible DNA Damage at Base Pair Mismatches. <i>Biochemistry</i> , 2020 , 59, 717-726	3.2	7
18	Cellular Target of a Rhodium Metalloinsertor is the DNA Base Pair Mismatch. <i>Chemistry - A European Journal</i> , 2019 , 25, 3014-3019	4.8	7
17	Oxidation of p53 through DNA charge transport involves a network of disulfides within the DNA-binding domain. <i>Biochemistry</i> , 2015 , 54, 932-41	3.2	6
16	Substrate Binding Regulates Redox Signaling in Human DNA Primase. <i>Journal of the American Chemical Society</i> , 2018 , 140, 17153-17162	16.4	6

15	UvrC Coordinates an O-Sensitive [4Fe4S] Cofactor. <i>Journal of the American Chemical Society</i> , 2020 , 142, 10964-10977	16.4	4
14	Response to Comments on "The [4Fe4S] cluster of human DNA primase functions as a redox switch using DNA charge transport". <i>Science</i> , 2017 , 357,	33.3	4
13	Metallointercalators as Probes of DNA Recognition and Reactions 2008 , 1		4
12	Functional and structural similarity of human DNA primase [4Fe4S] cluster domain constructs. <i>PLoS ONE</i> , 2018 , 13, e0209345	3.7	4
11	DNA Electrochemistry: Charge-Transport Pathways through DNA Films on Gold. <i>Journal of the American Chemical Society</i> , 2021 , 143, 11631-11640	16.4	4
10	Electrical Probes of DNA-Binding Proteins. <i>Methods in Enzymology</i> , 2017 , 591, 355-414	1.7	3
9	Sequence-Dependent DNA Dynamics: The Regulator of DNA-Mediated Charge Transport 2006 , 27-75		3
8	DNA-Mediated Electron Transfer: A Sensitive Probe of DNA-Protein Interactions. <i>Journal of Biomolecular Structure and Dynamics</i> , 2000 , 17 Suppl 1, 285-91	3.6	2
7	15 DNA signaling by iron-sulfur cluster proteins 2017 ,		2
6	Rhodium Complexes Targeting DNA Mismatches as a Basis for New Therapeutics in Cancers Deficient in Mismatch Repair. <i>Biochemistry</i> , 2021 , 60, 2055-2063	3.2	2
5	Extracellular DNA promotes efficient extracellular electron transfer by pyocyanin in <i>Pseudomonas aeruginosa</i> biofilms		1
4	The [4Fe4S] Cluster of Yeast DNA Polymerase β Is Redox Active and Can Undergo DNA-Mediated Signaling. <i>Journal of the American Chemical Society</i> , 2021 , 143, 16147-16153	16.4	1
3	DNA Sensors Using DNA Charge Transport Chemistry 2017 , 105-120		
2	An Electrochemical Probe of DNA Stacking in an Antisense Oligonucleotide Containing a C3'-endo-Locked Sugar. <i>Angewandte Chemie</i> , 2002 , 114, 3552-3555	3.6	
1	Charge Transport in DNA 146-177		