

Bruce A Armitage

List of Publications by Citations

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117
papers

5,796
citations

41
h-index

74
g-index

128
ext. papers

6,087
ext. citations

8.8
avg, IF

5.88
L-index

#	Paper	IF	Citations
117	Photocleavage of Nucleic Acids. <i>Chemical Reviews</i> , 1998 , 98, 1171-1200	68.1	661
116	DNA-templated assembly of helical cyanine dye aggregates: a supramolecular chain polymerization. <i>Accounts of Chemical Research</i> , 2004 , 37, 845-53	24.3	276
115	DNA-Templated Formation of a Helical Cyanine Dye J-Aggregate. <i>Journal of the American Chemical Society</i> , 2000 , 122, 9977-9986	16.4	269
114	Spontaneous Assembly of Helical Cyanine Dye Aggregates on DNA Nanotemplates. <i>Journal of the American Chemical Society</i> , 1999 , 121, 2987-2995	16.4	229
113	Cyanine Dye-DNA Interactions: Intercalation, Groove Binding, and Aggregation. <i>Topics in Current Chemistry</i> , 2005 , 55-76		211
112	Cationic Anthraquinone Derivatives as Catalytic DNA Photonucleases: Mechanisms for DNA Damage and Quinone Recycling. <i>Journal of the American Chemical Society</i> , 1994 , 116, 9847-9859	16.4	163
111	Experimental and computational investigation of unsymmetrical cyanine dyes: understanding torsionally responsive fluorogenic dyes. <i>Journal of the American Chemical Society</i> , 2007 , 129, 5710-8	16.4	159
110	Polymerization of Preformed Self-Organized Assemblies. <i>Accounts of Chemical Research</i> , 1998 , 31, 861-868	24.3	151
109	Cleavage of DNA by Irradiation of Substituted Anthraquinones: Intercalation Promotes Electron Transfer and Efficient Reaction at GG Steps. <i>Journal of the American Chemical Society</i> , 1996 , 118, 8747-8748	16.4	150
108	Synthesis and characterization of conformationally preorganized, (R)-diethylene glycol-containing peptide nucleic acids with superior hybridization properties and water solubility. <i>Journal of Organic Chemistry</i> , 2011 , 76, 5614-27	4.2	140
107	Fluorescent DNA nanotags: supramolecular fluorescent labels based on intercalating dye arrays assembled on nanostructured DNA templates. <i>Journal of the American Chemical Society</i> , 2007 , 129, 2025-34	16.4	135
106	Synthesis of new fluorogenic cyanine dyes and incorporation into RNA fluoromodules. <i>Organic Letters</i> , 2008 , 10, 1561-4	6.2	119
105	Improved photostability and fluorescence properties through polyfluorination of a cyanine dye. <i>Organic Letters</i> , 2004 , 6, 909-12	6.2	118
104	Electron-transfer reactions in the Marcus inverted region. Charge recombination versus charge shift reactions. <i>Journal of the American Chemical Society</i> , 1989 , 111, 1917-1919	16.4	101
103	Hybridization of PNA to structured DNA targets: quadruplex invasion and the overhang effect. <i>Journal of the American Chemical Society</i> , 2001 , 123, 9612-9	16.4	100
102	Fluorescent DNA nanotags based on a self-assembled DNA tetrahedron. <i>ACS Nano</i> , 2009 , 3, 425-33	16.7	97
101	A rainbow of fluoromodules: a promiscuous scFv protein binds to and activates a diverse set of fluorogenic cyanine dyes. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12620-1	16.4	94

100	Helical Aggregation of Cyanine Dyes on DNA Templates: Effect of Dye Structure on Formation of Homo- and Heteroaggregates. <i>Langmuir</i> , 2002 , 18, 6330-6337	4	91
99	Strand invasion of mixed-sequence B-DNA by acridine-linked, gamma-peptide nucleic acid (gamma-PNA). <i>Journal of the American Chemical Society</i> , 2007 , 129, 15596-600	16.4	86
98	Molecular Recognition of PNA-Containing Hybrids: Spontaneous Assembly of Helical Cyanine Dye Aggregates on PNA Templates. <i>Journal of the American Chemical Society</i> , 1999 , 121, 2686-2695	16.4	84
97	Formation of a PNA ₂ -DNA ₂ hybrid quadruplex. <i>Journal of the American Chemical Society</i> , 2003 , 125, 4111-4	16.4	81
96	Effect of secondary structure on the thermodynamics and kinetics of PNA hybridization to DNA hairpins. <i>Journal of the American Chemical Society</i> , 2001 , 123, 10805-13	16.4	81
95	Imaging of RNA in live cells. <i>Current Opinion in Chemical Biology</i> , 2011 , 15, 806-12	9.7	78
94	Enhanced photostability of genetically encodable fluoromodules based on fluorogenic cyanine dyes and a promiscuous protein partner. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12960-9	16.4	74
93	The impact of nucleic acid secondary structure on PNA hybridization. <i>Drug Discovery Today</i> , 2003 , 8, 222-8	8.8	74
92	Detection of Single Nucleotide Mismatches via Fluorescent Polymer Superquenching \square <i>Langmuir</i> , 2003 , 19, 6456-6464	4	72
91	Fluoromodules Consisting of a Promiscuous RNA Aptamer and Red or Blue Fluorogenic Cyanine Dyes: Selection, Characterization, and Bioimaging. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9001-9009	16.4	69
90	Twisted cyanines: a non-planar fluorogenic dye with superior photostability and its use in a protein-based fluoromodule. <i>Journal of the American Chemical Society</i> , 2013 , 135, 242-51	16.4	69
89	Cubic liquid-crystalline nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 4402-9	16.4	69
88	Label-free molecular beacons for biomolecular detection. <i>Analytical Chemistry</i> , 2014 , 86, 10864-9	7.8	64
87	Quadruplex formation by a guanine-rich PNA oligomer. <i>Journal of the American Chemical Society</i> , 2005 , 127, 4199-207	16.4	60
86	Wavelength Dependence of the Fluorescence Quenching Efficiency of Nearby Dyes by Gold Nanoclusters and Nanoparticles: The Roles of Spectral Overlap and Particle Size. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 20105-20112	3.8	55
85	Blue fluorescent dye-protein complexes based on fluorogenic cyanine dyes and single chain antibody fragments. <i>Organic and Biomolecular Chemistry</i> , 2011 , 9, 1012-20	3.9	54
84	Bright Fluorescent Nanotags from Bottlebrush Polymers with DNA-Tipped Bristles. <i>ACS Central Science</i> , 2015 , 1, 431-8	16.8	50
83	Loop and backbone modifications of peptide nucleic acid improve g-quadruplex binding selectivity. <i>Journal of the American Chemical Society</i> , 2009 , 131, 18415-24	16.4	50

82	Peptide nucleic acid-DNA duplexes: long range hole migration from an internally linked anthraquinone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997 , 94, 12320-5	11.5	48
81	RNA guanine quadruplex invasion by complementary and homologous PNA probes. <i>Journal of the American Chemical Society</i> , 2005 , 127, 8032-3	16.4	46
80	Hybridization of complementary and homologous peptide nucleic acid oligomers to a guanine quadruplex-forming RNA. <i>Biochemistry</i> , 2006 , 45, 1745-54	3.2	46
79	Recognition of ATGA sequences by the unfused aromatic dication DB293 forming stacked dimers in the DNA minor groove. <i>Biochemistry</i> , 2001 , 40, 9770-9	3.2	45
78	High-affinity homologous peptide nucleic acid probes for targeting a quadruplex-forming sequence from a MYC promoter element. <i>Biochemistry</i> , 2007 , 46, 10433-43	3.2	43
77	Effect of PNA backbone modifications on cyanine dye binding to PNA-DNA duplexes investigated by optical spectroscopy and molecular dynamics simulations. <i>Journal of the American Chemical Society</i> , 2005 , 127, 3339-45	16.4	42
76	Cyanine Dye-Nucleic Acid Interactions. <i>Topics in Heterocyclic Chemistry</i> , 2008 , 11-29	0.2	39
75	Hairpin-forming peptide nucleic acid oligomers. <i>Biochemistry</i> , 1998 , 37, 9417-25	3.2	39
74	Fluorescent PNA probes as hybridization labels for biological RNA. <i>Biochemistry</i> , 2006 , 45, 6066-74	3.2	38
73	Recent advances in the development of peptide nucleic acid as a gene-targeted drug. <i>Expert Opinion on Biological Therapy</i> , 2004 , 4, 337-48	5.4	38
72	Antitumor effects of EGFR antisense guanidine-based peptide nucleic acids in cancer models. <i>ACS Chemical Biology</i> , 2013 , 8, 345-52	4.9	37
71	Two-Dimensional Polymerization of Lipid Bilayers: Visible-Light-Sensitized Photoinitiation. <i>Macromolecules</i> , 1997 , 30, 32-41	5.5	35
70	Three-Dimensional Structure and Reactivity of a Photochemical Cleavage Agent Bound to DNA. <i>Journal of the American Chemical Society</i> , 1998 , 120, 12402-12409	16.4	30
69	A recoverable enzymatic microgel based on biomolecular recognition. <i>Journal of the American Chemical Society</i> , 2004 , 126, 726-7	16.4	30
68	Selective photocleavage of DNA by anthraquinone derivatives: targeting the single-strand region of hairpin structures. <i>Biochemistry</i> , 1998 , 37, 2991-3000	3.2	29
67	Polymerization and domain formation in lipid assemblies. <i>Advances in Polymer Science</i> , 1996 , 53-84	1.3	29
66	Selective stabilization of triplex DNA by anthraquinone sulfonamide derivatives. <i>Biochemistry</i> , 1997 , 36, 1461-6	3.2	28
65	Modular evolution of DNA-binding preference of a Tbrain transcription factor provides a mechanism for modifying gene regulatory networks. <i>Molecular Biology and Evolution</i> , 2014 , 31, 2672-88	8.3	26

64	Substituent effects on the assembly of helical cyanine dye aggregates in the minor groove of a DNA template. <i>Langmuir</i> , 2011 , 27, 1472-9	4	26
63	Reversible Association of PNA-Terminated Poly(2-hydroxyethyl acrylate) from ATRP. <i>Macromolecules</i> , 2005 , 38, 5846-5848	5.5	25
62	Structural basis for activation of fluorogenic dyes by an RNA aptamer lacking a G-quadruplex motif. <i>Nature Communications</i> , 2018 , 9, 4542	17.4	25
61	Fluorescent DNA nanotags featuring covalently attached intercalating dyes: synthesis, antibody conjugation, and intracellular imaging. <i>Bioconjugate Chemistry</i> , 2011 , 22, 1491-502	6.3	24
60	¹ H NMR and optical spectroscopic investigation of the sequence-dependent dimerization of a symmetrical cyanine dye in the DNA minor groove. <i>Biochemistry</i> , 2005 , 44, 15924-9	3.2	22
59	Synthesis and characterization of thermoreversible biopolymer microgels based on hydrogen bonded nucleobase pairing. <i>Journal of the American Chemical Society</i> , 2003 , 125, 10250-6	16.4	22
58	Factors controlling the efficiencies of photoinduced electron-transfer reactions. <i>Research on Chemical Intermediates</i> , 1995 , 21, 793-806	2.8	22
57	Vectorial photoinduced electron transfer between phospholipid membrane-bound donors and acceptors. <i>Journal of the American Chemical Society</i> , 1992 , 114, 7396-7403	16.4	22
56	Hybridization of G-quadruplex-forming peptide nucleic acids to guanine-rich DNA templates inhibits DNA polymerase extension. <i>Biochemistry</i> , 2014 , 53, 5315-22	3.2	20
55	Investigation of DNA binding modes for a symmetrical cyanine dye trication: effect of DNA sequence and structure. <i>Journal of Biomolecular Structure and Dynamics</i> , 2001 , 18, 844-56	3.6	20
54	Efficient Photoinduced Orthogonal Energy and Electron Transfer Reactions via Phospholipid Membrane-Bound Donors and Acceptors. <i>Journal of the American Chemical Society</i> , 1994 , 116, 9166-9173	16.4	20
53	A variable light domain fluorogen activating protein homodimerizes to activate dimethylindole red. <i>Biochemistry</i> , 2012 , 51, 2471-85	3.2	19
52	Role reversal in a supramolecular assembly: a chiral cyanine dye controls the helicity of a peptide-nucleic acid duplex. <i>Langmuir</i> , 2005 , 21, 5362-6	4	19
51	Dimerization of cyanine dyes in water driven by association with hydrophobic borate anions. <i>Journal of the American Chemical Society</i> , 1993 , 115, 10786-10790	16.4	19
50	High affinity BNA sandwich hybridization assay for rapid detection of short nucleic acid targets with single mismatch discrimination. <i>Biomacromolecules</i> , 2013 , 14, 2253-61	6.9	18
49	Strand invasion of DNA quadruplexes by PNA: comparison of homologous and complementary hybridization. <i>ChemBioChem</i> , 2013 , 14, 1476-84	3.8	18
48	Enhancement of energy transfer on bilayer surfaces via polymerization-induced domain formation. <i>Journal of the American Chemical Society</i> , 1993 , 115, 7920-7921	16.4	18
47	RNA G-Quadruplex Invasion and Translation Inhibition by Antisense Peptide Nucleic Acid Oligomers. <i>Biochemistry</i> , 2016 , 55, 1977-88	3.2	17

46	Kinetic discrimination in recognition of DNA quadruplex targets by guanine-rich heteroquadruplex-forming PNA probes. <i>Chemical Communications</i> , 2011 , 47, 8524-6	5.8	16
45	Spectral fine tuning of cyanine dyes: electron donor-acceptor substituted analogues of thiazole orange. <i>Photochemical and Photobiological Sciences</i> , 2015 , 14, 1703-12	4.2	15
44	Closing the Loop: Constraining TAT Peptide by PNA Hairpin for Enhanced Cellular Delivery of Biomolecules. <i>Bioconjugate Chemistry</i> , 2018 , 29, 2892-2898	6.3	15
43	Cooperative hybridization of PNA miniprobcs to a repeating sequence motif and application to telomere analysis. <i>Organic and Biomolecular Chemistry</i> , 2014 , 12, 7345-7354	3.9	15
42	A structural model for cyanine dyes templated into the minor groove of DNA. <i>Chemical Physics</i> , 2006 , 325, 36-47	2.3	15
41	Anthraquinone photonucleases: a surprising role for chloride in the sequence-neutral cleavage of DNA and the footprinting of minor groove-bound ligands. <i>Photochemistry and Photobiology</i> , 1997 , 66, 164-70	3.6	14
40	Effect of LNA modifications on small molecule binding to nucleic acids. <i>Journal of Biomolecular Structure and Dynamics</i> , 2004 , 21, 841-50	3.6	14
39	Electrostatic Contributions to Cyanine Dye Aggregation on Peptide Nucleic Acid Templates \square <i>Langmuir</i> , 2003 , 19, 6449-6455	4	14
38	Peptide nucleic acid (PNA)/DNA hybrid duplexes: intercalation by an internally linked anthraquinone. <i>Nucleic Acids Research</i> , 1998 , 26, 715-20	20.1	14
37	In Vitro Reversible Translation Control Using PNA Probes. <i>Journal of the American Chemical Society</i> , 2015 , 137, 10268-75	16.4	13
36	Noncovalent binding and fluorogenic response of cyanine dyes to DNA homoquadruplex and PNA-DNA heteroquadruplex structures. <i>Artificial DNA, PNA & XNA</i> , 2011 , 2, 43-49		13
35	Molecular engineering of torsional potentials in fluorogenic dyes via electronic substituent effects. <i>Journal of Physical Chemistry A</i> , 2008 , 112, 9692-701	2.8	12
34	Probing of miniPEG-PNA-DNA Hybrid Duplex Stability with AFM Force Spectroscopy. <i>Biochemistry</i> , 2016 , 55, 1523-8	3.2	11
33	Aptamers act as activators for the thrombin mediated-hydrolysis of peptide substrates. <i>ChemBioChem</i> , 2014 , 15, 205-8	3.8	11
32	Self-assembled supramolecular microgels: Fractal structure and aggregation mechanism. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 3037-3046	2.6	11
31	Lipid bilayer enhanced photoinduced electron transfer. <i>Journal of the American Chemical Society</i> , 1991 , 113, 9678-9679	16.4	11
30	Homologous PNA Hybridization to Noncanonical DNA G-Quadruplexes. <i>Biochemistry</i> , 2016 , 55, 1749-57	3.2	10
29	Refined multivalent display of bacterial spore-binding peptides. <i>Organic and Biomolecular Chemistry</i> , 2009 , 7, 1815-20	3.9	9

28	Telomeric repeat mutagenicity in human somatic cells is modulated by repeat orientation and G-quadruplex stability. <i>DNA Repair</i> , 2010 , 9, 1119-29	4.3	9
27	Enhanced Hybridization Selectivity Using Structured GammaPNA Probes. <i>Molecules</i> , 2020 , 25,	4.8	7
26	Bichromophoric dyes for wavelength shifting of dye-protein fluoromodules. <i>Organic and Biomolecular Chemistry</i> , 2015 , 13, 3699-710	3.9	7
25	Chemistry. An enlightening structure-function relationship. <i>Science</i> , 2008 , 319, 1195-6	33.3	7
24	PNA FRET Pair Miniprobes for Quantitative Fluorescent In Situ Hybridization to Telomeric DNA in Cells and Tissue. <i>Molecules</i> , 2017 , 22,	4.8	6
23	Accessibility of Densely Localized DNA on Soft Polymer Nanoparticles. <i>Langmuir</i> , 2018 , 34, 14731-14737	4	4
22	6 Bioinspired organic chemistry. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2000 , 96, 187-229		4
21	A Single-Chain-Variable-Fragment Fluorescence Biosensor Activates Fluorogens from Dissimilar Chemical Families. <i>Protein and Peptide Letters</i> , 2014 , 21, 1289-1294	1.9	4
20	Targeting a Potential G-Quadruplex Forming Sequence Found in the West Nile Virus Genome by Complementary Gamma-Peptide Nucleic Acid Oligomers. <i>ACS Infectious Diseases</i> , 2021 , 7, 1445-1456	5.5	4
19	10 Bioinspired organic chemistry. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2002 , 98, 503-541		3
18	Efficient Cytoplasmic Delivery of Antisense Probes Assisted by Cyclized-Peptide-Mediated Photoinduced Endosomal Escape. <i>ChemBioChem</i> , 2019 , 20, 727-733	3.8	3
17	Spectral Properties of Fluorogenic Thiophene-derived Triarylmethane Dyes. <i>Photochemistry and Photobiology</i> , 2019 , 95, 406-410	3.6	3
16	A single-chain-variable-fragment fluorescence biosensor activates fluorogens from dissimilar chemical families. <i>Protein and Peptide Letters</i> , 2014 , 21, 1289-94	1.9	3
15	Targeting G-Quadruplexes with PNA Oligomers. <i>Methods in Molecular Biology</i> , 2019 , 2035, 333-345	1.4	2
14	Long Range Electron Transfer in PNA/DNA Duplexes. <i>Nucleosides & Nucleotides</i> , 1999 , 18, 1313-1315		2
13	Peptide Nucleic Acids (PNAs) 2008 , 1		1
12	Kubische flüssigkristalline Nanopartikel. <i>Angewandte Chemie</i> , 2004 , 116, 4502-4510	3.6	1
11	Colorimetric detection of PNA-DNA hybridization using cyanine dyes. <i>Methods in Molecular Biology</i> , 2002 , 208, 131-42	1.4	1

10	10 Bioinspired organic chemistry. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2001 , 97, 483-512	1
9	Recent advances in the development of peptide nucleic acid as a gene-targeted drug	1
8	Assembly and Characterization of RNA/DNA Hetero-G-Quadruplexes. <i>Biochemistry</i> , 2020 , 59, 4072-4080	3.2 1
7	The Aptamer Handbook. Functional Oligonucleotides and Their Applications. Herausgegeben von Sven Klussmann.. <i>Angewandte Chemie</i> , 2007 , 119, 1226-1227	3.6
6	Langmuir Special Issue in Memory of David F. O'Brien □ <i>Langmuir</i> , 2003 , 19, 6339-6341	4
5	DNA-Templated Assembly of Helical Multichromophore Aggregates. <i>Molecular and Supramolecular Photochemistry</i> , 2005 , 255-287	
4	Rapid, multiplexed detection of the let-7 miRNA family using PNA amphiphiles in micelle-tagging electrophoresis. <i>Biopolymers</i> , 2021 , e23479	2.2
3	Formation and characterization of PNA-containing heteroquadruplexes. <i>Methods in Molecular Biology</i> , 2014 , 1050, 73-82	1.4
2	Analysis of PNA hybridization by surface plasmon resonance. <i>Methods in Molecular Biology</i> , 2014 , 1050, 159-65	1.4
1	Fluoromodules: Fluorescent Dye-Protein Complexes for Genetically Encodable Labels 2016 , 124-136	