

Itamar Willner

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481
papers

44,390
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118
h-index

193
g-index

500
ext. papers

48,131
ext. citations

12
avg, IF

8.02
L-index

#	Paper	IF	Citations
481	"Plugging into Enzymes": nanowiring of redox enzymes by a gold nanoparticle. <i>Science</i> , 2003 , 299, 1877-81	31.3	1138
480	Probing Biomolecular Interactions at Conductive and Semiconductive Surfaces by Impedance Spectroscopy: Routes to Impedimetric Immunosensors, DNA-Sensors, and Enzyme Biosensors. <i>Electroanalysis</i> , 2003 , 15, 913-947	3	1108
479	Integration of Layered Redox Proteins and Conductive Supports for Bioelectronic Applications. <i>Angewandte Chemie - International Edition</i> , 2000 , 39, 1180-1218	16.4	799
478	Semiconductor quantum dots for bioanalysis. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 7602-26	16.4	790
477	Diverse Applications of Nanomedicine. <i>ACS Nano</i> , 2017 , 11, 2313-2381	16.7	714
476	Electronic aptamer-based sensors. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 6408-18	16.4	708
475	DNAzymes for sensing, nanobiotechnology and logic gate applications. <i>Chemical Society Reviews</i> , 2008 , 37, 1153-65	58.5	680
474	Electroanalytical and Bioelectroanalytical Systems Based on Metal and Semiconductor Nanoparticles. <i>Electroanalysis</i> , 2004 , 16, 19-44	3	648
473	Aptamer-functionalized Au nanoparticles for the amplified optical detection of thrombin. <i>Journal of the American Chemical Society</i> , 2004 , 126, 11768-9	16.4	631
472	Optical analysis of Hg ²⁺ ions by oligonucleotide-gold-nanoparticle hybrids and DNA-based machines. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 3927-31	16.4	609
471	Enzyme cascades activated on topologically programmed DNA scaffolds. <i>Nature Nanotechnology</i> , 2009 , 4, 249-54	28.7	551
470	From cascaded catalytic nucleic acids to enzyme-DNA nanostructures: controlling reactivity, sensing, logic operations, and assembly of complex structures. <i>Chemical Reviews</i> , 2014 , 114, 2881-941	68.1	498
469	Chemiluminescent and chemiluminescence resonance energy transfer (CRET) detection of DNA, metal ions, and aptamer-substrate complexes using hemin/G-quadruplexes and CdSe/ZnS quantum dots. <i>Journal of the American Chemical Society</i> , 2011 , 133, 11597-604	16.4	493
468	Multiplexed analysis of Hg ²⁺ and Ag ⁺ ions by nucleic acid functionalized CdSe/ZnS quantum dots and their use for logic gate operations. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 7818-21	16.4	447
467	Nucleic acid-functionalized Pt nanoparticles: Catalytic labels for the amplified electrochemical detection of biomolecules. <i>Analytical Chemistry</i> , 2006 , 78, 2268-71	7.8	428
466	Catalytic beacons for the detection of DNA and telomerase activity. <i>Journal of the American Chemical Society</i> , 2004 , 126, 7430-1	16.4	394
465	Optical molecular sensing with semiconductor quantum dots (QDs). <i>Chemical Society Reviews</i> , 2012 , 41, 4067-85	58.5	385

464	DNA computing circuits using libraries of DNAzyme subunits. <i>Nature Nanotechnology</i> , 2010 , 5, 417-22	28.7	369
463	Growing Metal Nanoparticles by Enzymes. <i>Advanced Materials</i> , 2006 , 18, 1109-1120	24	344
462	Detection of single-base DNA mutations by enzyme-amplified electronic transduction. <i>Nature Biotechnology</i> , 2001 , 19, 253-7	44.5	341
461	DNA switches: from principles to applications. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10981-10989	16.2	340
460	Integrated Enzyme-Based Biofuel Cells: A Review. <i>Fuel Cells</i> , 2009 , 9, 7-24	2.9	335
459	Graphene oxide/nucleic-acid-stabilized silver nanoclusters: functional hybrid materials for optical aptamer sensing and multiplexed analysis of pathogenic DNAs. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11832-9	16.4	327
458	Amplified chemiluminescence surface detection of DNA and telomerase activity using catalytic nucleic acid labels. <i>Analytical Chemistry</i> , 2004 , 76, 2152-6	7.8	326
457	Functionalized DNA nanostructures. <i>Chemical Reviews</i> , 2012 , 112, 2528-56	68.1	318
456	Acetylcholine esterase-labeled CdS nanoparticles on electrodes: photoelectrochemical sensing of the enzyme inhibitors. <i>Journal of the American Chemical Society</i> , 2003 , 125, 622-3	16.4	316
455	Amplified analysis of low-molecular-weight substrates or proteins by the self-assembly of DNAzyme-aptamer conjugates. <i>Journal of the American Chemical Society</i> , 2007 , 129, 5804-5	16.4	310
454	Biocatalytic cascades driven by enzymes encapsulated in metal-organic framework nanoparticles. <i>Nature Catalysis</i> , 2018 , 1, 689-695	36.5	309
453	Investigations into the Electrostatically Induced Aggregation of Au Nanoparticles. <i>Langmuir</i> , 2000 , 16, 8789-8795	4	300
452	Amplified analysis of DNA by the autonomous assembly of polymers consisting of DNAzyme wires. <i>Journal of the American Chemical Society</i> , 2011 , 133, 17149-51	16.4	294
451	DNAzyme-Functionalized Au Nanoparticles for the Amplified Detection of DNA or Telomerase Activity. <i>Nano Letters</i> , 2004 , 4, 1683-1687	11.5	282
450	Amplified detection of DNA through the enzyme-free autonomous assembly of hemin/G-quadruplex DNAzyme nanowires. <i>Analytical Chemistry</i> , 2012 , 84, 1042-8	7.8	281
449	Integrated nanoparticle-biomolecule systems for biosensing and bioelectronics. <i>Biosensors and Bioelectronics</i> , 2007 , 22, 1841-52	11.8	277
448	Tech.Sight. Bioelectronics. Biomaterials for sensors, fuel cells, and circuitry. <i>Science</i> , 2002 , 298, 2407-8	33.3	276
447	pH-stimulated DNA hydrogels exhibiting shape-memory properties. <i>Advanced Materials</i> , 2015 , 27, 73-8	24	273

446	Multiplexed aptasensors and amplified DNA sensors using functionalized graphene oxide: application for logic gate operations. <i>ACS Nano</i> , 2012 , 6, 3553-63	16.7	270
445	Stimuli-Responsive DNA-Based Hydrogels: From Basic Principles to Applications. <i>Accounts of Chemical Research</i> , 2017 , 50, 680-690	24.3	266
444	Spotlighting of cocaine by an autonomous aptamer-based machine. <i>Journal of the American Chemical Society</i> , 2007 , 129, 3814-5	16.4	255
443	A virus spotlighted by an autonomous DNA machine. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7384-8	16.4	251
442	Biomolecule-based nanomaterials and nanostructures. <i>Nano Letters</i> , 2010 , 10, 3805-15	11.5	244
441	Chemiluminescence and chemiluminescence resonance energy transfer (CRET) aptamer sensors using catalytic hemin/G-quadruplexes. <i>ACS Nano</i> , 2011 , 5, 7648-55	16.7	242
440	Integration of polyaniline/poly(acrylic acid) films and redox enzymes on electrode supports: an in situ electrochemical/surface plasmon resonance study of the bioelectrocatalyzed oxidation of glucose or lactate in the integrated bioelectrocatalytic systems. <i>Journal of the American Chemical Society</i> , 2002 , 124, 6487-96	16.4	241
439	Electronic transduction of DNA sensing processes on surfaces: amplification of DNA detection and analysis of single-base mismatches by tagged liposomes. <i>Journal of the American Chemical Society</i> , 2001 , 123, 5194-205	16.4	239
438	Electrochemical, photoelectrochemical, and surface plasmon resonance detection of cocaine using supramolecular aptamer complexes and metallic or semiconductor nanoparticles. <i>Analytical Chemistry</i> , 2009 , 81, 9291-8	7.8	230
437	Mimicking Horseradish Peroxidase Functions Using Cu-Modified Carbon Nitride Nanoparticles or Cu-Modified Carbon Dots as Heterogeneous Catalysts. <i>ACS Nano</i> , 2017 , 11, 3247-3253	16.7	226
436	Beta-cyclodextrin-modified CdSe/ZnS quantum dots for sensing and chiroselective analysis. <i>Nano Letters</i> , 2009 , 9, 2073-6	11.5	220
435	Amplified biosensing using the horseradish peroxidase-mimicking DNAzyme as an electrocatalyst. <i>Analytical Chemistry</i> , 2010 , 82, 4396-402	7.8	215
434	DNA machines: bipedal walker and stepper. <i>Nano Letters</i> , 2011 , 11, 304-9	11.5	211
433	Ultrasensitive surface plasmon resonance detection of trinitrotoluene by a bis-aniline-cross-linked Au nanoparticles composite. <i>Journal of the American Chemical Society</i> , 2009 , 131, 7368-78	16.4	211
432	Precipitation of an insoluble product on enzyme monolayer electrodes for biosensor applications: characterization by Faradaic impedance spectroscopy, cyclic voltammetry, and microgravimetric quartz crystal microbalance analyses. <i>Analytical Chemistry</i> , 1999 , 71, 3171-80	7.8	211
431	Development of novel biosensor enzyme electrodes: Glucose oxidase multilayer arrays immobilized onto self-assembled monolayers on electrodes. <i>Advanced Materials</i> , 1993 , 5, 912-915	24	210
430	Functional nucleic acid nanostructures and DNA machines. <i>Current Opinion in Biotechnology</i> , 2010 , 21, 376-91	11.4	205
429	Integrated photosystem II-based photo-bioelectrochemical cells. <i>Nature Communications</i> , 2012 , 3, 742	17.4	197

428	A DNAzyme cascade for the amplified detection of Pb(2+) ions or L-histidine. <i>Chemical Communications</i> , 2008 , 1569-71	5.8	196
427	Magnetic control of electrocatalytic and bioelectrocatalytic processes. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 4576-88	16.4	195
426	DNA-based machines. <i>Organic and Biomolecular Chemistry</i> , 2006 , 4, 3392-401	3.9	192
425	Amplified surface plasmon resonance and electrochemical detection of Pb ²⁺ ions using the Pb ²⁺ -dependent DNAzyme and hemin/G-quadruplex as a label. <i>Analytical Chemistry</i> , 2012 , 84, 3703-9	7.8	186
424	Reconstitution of apo-glucose dehydrogenase on pyrroloquinoline quinone-functionalized au nanoparticles yields an electrically contacted biocatalyst. <i>Journal of the American Chemical Society</i> , 2005 , 127, 12400-6	16.4	182
423	NAD ⁺ -Dependent Enzyme Electrodes: Electrical Contact of Cofactor-Dependent Enzymes and Electrodes. <i>Journal of the American Chemical Society</i> , 1997 , 119, 9114-9119	16.4	180
422	DNA nanotechnology: from sensing and DNA machines to drug-delivery systems. <i>ACS Nano</i> , 2013 , 7, 8320-32	16.7	179
421	Au-nanoparticle nanowires based on DNA and polylysine templates. <i>Angewandte Chemie - International Edition</i> , 2002 , 41, 2323-7	16.4	179
420	Triplex DNA Nanostructures: From Basic Properties to Applications. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 15210-15233	16.4	177
419	Smart mesoporous SiO ₂ nanoparticles for the DNAzyme-induced multiplexed release of substrates. <i>Journal of the American Chemical Society</i> , 2013 , 135, 1934-40	16.4	176
418	Biomolecule-nanoparticle hybrid systems for bioelectronic applications. <i>Bioelectrochemistry</i> , 2007 , 70, 2-11	5.6	175
417	Nucleoapzymes: Hemin/G-Quadruplex DNAzyme-Aptamer Binding Site Conjugates with Superior Enzyme-like Catalytic Functions. <i>Journal of the American Chemical Society</i> , 2016 , 138, 164-72	16.4	172
416	Amplified Microgravimetric Quartz-Crystal-Microbalance Assay of DNA Using Oligonucleotide-Functionalized Liposomes or Biotinylated Liposomes. <i>Journal of the American Chemical Society</i> , 2000 , 122, 418-419	16.4	172
415	Enzyme-Linked Amplified Electrochemical Sensing of Oligonucleotide-DNA Interactions by Means of the Precipitation of an Insoluble Product and Using Impedance Spectroscopy. <i>Langmuir</i> , 1999 , 15, 3703-3706	4	172
414	Nucleic acid/quantum dots (QDs) hybrid systems for optical and photoelectrochemical sensing. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 2815-34	9.5	171
413	Electrical contact of redox enzyme layers associated with electrodes: Routes to amperometric biosensors. <i>Electroanalysis</i> , 1997 , 9, 965-977	3	171
412	Stimuli-Responsive DNA-Functionalized Metal-Organic Frameworks (MOFs). <i>Advanced Materials</i> , 2017 , 29, 1602782	24	167
411	Surface plasmon resonance analysis of antibiotics using imprinted boronic acid-functionalized Au nanoparticle composites. <i>Analytical Chemistry</i> , 2010 , 82, 2512-9	7.8	166

410	Nanoparticles as structural and functional units in surface-confined architectures. <i>Chemical Communications</i> , 2001 , 2035-45	5.8	166
409	Gold Nanoparticle/Hydrogel Composites with Solvent-Switchable Electronic Properties. <i>Advanced Materials</i> , 2001 , 13, 1320	24	163
408	Optical aptasensors for the analysis of the vascular endothelial growth factor (VEGF). <i>Analytical Chemistry</i> , 2012 , 84, 6192-8	7.8	161
407	Diagnosing viruses by the rolling circle amplified synthesis of DNazymes. <i>Organic and Biomolecular Chemistry</i> , 2007 , 5, 223-5	3.9	161
406	Light-Responsive and pH-Responsive DNA Microcapsules for Controlled Release of Loads. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8936-45	16.4	157
405	Amplified detection of DNA and analysis of single-base mismatches by the catalyzed deposition of gold on Au-nanoparticles. <i>Analyst, The</i> , 2001 , 126, 1502-4	5	156
404	Electrical contacting of flavoenzymes and NAD(P) ⁺ -dependent enzymes by reconstitution and affinity interactions on phenylboronic acid monolayers associated with Au-electrodes. <i>Journal of the American Chemical Society</i> , 2002 , 124, 14724-35	16.4	154
403	Nanoparticle-enzyme hybrid systems for nanobiotechnology. <i>FEBS Journal</i> , 2007 , 274, 302-9	5.7	153
402	Lighting up biochemiluminescence by the surface self-assembly of DNA-hemin complexes. <i>ChemBioChem</i> , 2004 , 5, 374-9	3.8	152
401	Mimicking Horseradish Peroxidase and NADH Peroxidase by Heterogeneous Cu-Modified Graphene Oxide Nanoparticles. <i>Nano Letters</i> , 2017 , 17, 2043-2048	11.5	151
400	Stimuli-Responsive Nucleic Acid-Based Polyacrylamide Hydrogel-Coated Metal-Organic Framework Nanoparticles for Controlled Drug Release. <i>Advanced Functional Materials</i> , 2018 , 28, 1705137	15.6	151
399	Amplified multiplexed analysis of DNA by the exonuclease III-catalyzed regeneration of the target DNA in the presence of functionalized semiconductor quantum dots. <i>Nano Letters</i> , 2011 , 11, 4456-61	11.5	150
398	pH-stimulated concurrent mechanical activation of two DNA "tweezers". A "SET-RESET" logic gate system. <i>Nano Letters</i> , 2009 , 9, 4510-4	11.5	150
397	Logic gates and elementary computing by enzymes. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 8548-53	2.8	147
396	Coherent activation of DNA tweezers: a "SET-RESET" logic system. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 3834-7	16.4	145
395	Fluorescence detection of DNA by the catalytic activation of an aptamer/thrombin complex. <i>Journal of the American Chemical Society</i> , 2005 , 127, 6522-3	16.4	143
394	Layered Polyelectrolyte Films on Au Electrodes: Characterization of Electron-Transfer Features at the Charged Polymer Interface and Application for Selective Redox Reactions. <i>Langmuir</i> , 2001 , 17, 1110-4	11.8	143
393	Photoregulation of papain activity through anchoring photochromic azo groups to the enzyme backbone. <i>Journal of the American Chemical Society</i> , 1991 , 113, 3321-3325	16.4	141

392	Photosensitized reduction of carbon dioxide to methane and hydrogen evolution in the presence of ruthenium and osmium colloids: strategies to design selectivity of products distribution. <i>Journal of the American Chemical Society</i> , 1987 , 109, 6080-6086	16.4	140
391	Cysteine-mediated aggregation of Au nanoparticles: the development of a H ₂ O ₂ sensor and oxidase-based biosensors. <i>ACS Nano</i> , 2013 , 7, 7278-86	16.7	139
390	Switchable catalytic acrylamide hydrogels cross-linked by hemin/G-quadruplexes. <i>Nano Letters</i> , 2013 , 13, 1298-302	11.5	139
389	Stimuli-responsive DNA-functionalized nano-/microcontainers for switchable and controlled release. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 12212-35	16.4	138
388	Magneto-Switchable Bioelectrocatalysis. <i>Journal of the American Chemical Society</i> , 2000 , 122, 12053-12054	16.4	138
387	Fluorescence detection of DNA, adenosine-5'-triphosphate (ATP), and telomerase activity by zinc(II)-protoporphyrin IX/G-quadruplex labels. <i>Analytical Chemistry</i> , 2012 , 84, 4789-97	7.8	137
386	CdSe/ZnS quantum dots-G-quadruplex/hemin hybrids as optical DNA sensors and aptasensors. <i>Analytical Chemistry</i> , 2010 , 82, 7073-7	7.8	137
385	Electrical contacting of glucose oxidase in a redox-active rotaxane configuration. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 3292-300	16.4	137
384	Glucose-Responsive Metal-Organic-Framework Nanoparticles Act as "Smart" Sense-and-Treat Carriers. <i>ACS Nano</i> , 2018 , 12, 7538-7545	16.7	137
383	Cooperative multicomponent self-assembly of nucleic acid structures for the activation of DNAzyme cascades: a paradigm for DNA sensors and aptasensors. <i>Chemistry - A European Journal</i> , 2009 , 15, 3411-8	4.8	135
382	Stimuli-responsive nucleic acid-functionalized metal-organic framework nanoparticles using pH- and metal-ion-dependent DNAzymes as locks. <i>Chemical Science</i> , 2017 , 8, 5769-5780	9.4	131
381	Magnetic field effects on bioelectrocatalytic reactions of surface-confined enzyme systems: enhanced performance of biofuel cells. <i>Journal of the American Chemical Society</i> , 2005 , 127, 3979-88	16.4	131
380	Single gold nanoparticles as real-time optical probes for the detection of NADH-dependent intracellular metabolic enzymatic pathways. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 6789-92	16.4	130
379	Switchable bifunctional stimuli-triggered poly-N-isopropylacrylamide/DNA hydrogels. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 10134-8	16.4	127
378	Piezoelectric immunosensors for urine specimens of Chlamydia trachomatis employing quartz crystal microbalance microgravimetric analyses. <i>Analytical Chemistry</i> , 1997 , 69, 3506-12	7.8	127
377	Imprinting of nucleotide and monosaccharide recognition sites in acrylamidephenylboronic acid-acrylamide copolymer membranes associated with electronic transducers. <i>Analytical Chemistry</i> , 2002 , 74, 702-12	7.8	127
376	A hemin/G-quadruplex acts as an NADH oxidase and NADH peroxidase mimicking DNAzyme. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 11710-4	16.4	126
375	Amplified detection of single-base mismatches in DNA using microgravimetric quartz-crystal-microbalance transduction. <i>Talanta</i> , 2002 , 56, 847-56	6.2	126

374	Electrochemical Transduction of Liposome-Amplified DNA Sensing. <i>Angewandte Chemie - International Edition</i> , 2000 , 39, 940-943	16.4	125
373	Probing biocatalytic transformations with luminescent DNA/silver nanoclusters. <i>Nano Letters</i> , 2013 , 13, 309-14	11.5	124
372	Imprinted Au-nanoparticle composites for the ultrasensitive surface plasmon resonance detection of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX). <i>Advanced Materials</i> , 2010 , 22, 1387-91	24	124
371	Design of Amperometric Biosensors and Biofuel Cells by the Reconstitution of Electrically Contacted Enzyme Electrodes. <i>Electroanalysis</i> , 2008 , 20, 583-601	3	124
370	Dendritic amplification of DNA analysis by oligonucleotide-functionalized Au-nanoparticles. <i>Chemical Communications</i> , 2000 , 1025-1026	5.8	124
369	Functional nanoparticle architectures for sensoric, optoelectronic, and bioelectronic applications. <i>Pure and Applied Chemistry</i> , 2002 , 74, 1773-1783	2.1	123
368	Multitriggered Shape-Memory Acrylamide-DNA Hydrogels. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15723-31	16.4	122
367	Biocatalytic release of an anticancer drug from nucleic-acids-capped mesoporous SiO ₂ Using DNA or molecular biomarkers as triggering stimuli. <i>ACS Nano</i> , 2013 , 7, 8455-68	16.7	121
366	Switchable reconfiguration of nucleic acid nanostructures by stimuli-responsive DNA machines. <i>Accounts of Chemical Research</i> , 2014 , 47, 1673-80	24.3	120
365	Nanoengineered electrically contacted enzymes on DNA scaffolds: functional assemblies for the selective analysis of Hg ²⁺ ions. <i>Journal of the American Chemical Society</i> , 2010 , 132, 6878-9	16.4	120
364	Biosensing and probing of intracellular metabolic pathways by NADH-sensitive quantum dots. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 309-13	16.4	118
363	Amplified and multiplexed detection of DNA using the dendritic rolling circle amplified synthesis of DNAzyme reporter units. <i>Analytical Chemistry</i> , 2014 , 86, 1614-21	7.8	116
362	Catalytic nucleic acids (DNAzymes) as functional units for logic gates and computing circuits: from basic principles to practical applications. <i>Chemical Communications</i> , 2015 , 51, 4144-60	5.8	115
361	Integration of Switchable DNA-Based Hydrogels with Surfaces by the Hybridization Chain Reaction. <i>Nano Letters</i> , 2015 , 15, 7773-8	11.5	115
360	ATP-Responsive Aptamer-Based Metal-Organic Framework Nanoparticles (NMOFs) for the Controlled Release of Loads and Drugs. <i>Advanced Functional Materials</i> , 2017 , 27, 1702102	15.6	113
359	Powering the programmed nanostructure and function of gold nanoparticles with catenated DNA machines. <i>Nature Communications</i> , 2013 , 4, 2000	17.4	113
358	Self-assembly of enzymes on DNA scaffolds: en route to biocatalytic cascades and the synthesis of metallic nanowires. <i>Nano Letters</i> , 2009 , 9, 2040-3	11.5	113
357	All-DNA finite-state automata with finite memory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 21996-2001	11.5	112

356	Reversible Ag(+)-crosslinked DNA hydrogels. <i>Chemical Communications</i> , 2014 , 50, 4065-8	5.8	111
355	Amplified fluorescence aptamer-based sensors using exonuclease III for the regeneration of the analyte. <i>Chemistry - A European Journal</i> , 2012 , 18, 2207-11	4.8	111
354	Stimuli-Responsive Biomolecule-Based Hydrogels and Their Applications. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15342-15377	16.4	110
353	Magnetoswitchable electrochemistry gated by alkyl-chain-functionalized magnetic nanoparticles: control of diffusional and surface-confined electrochemical processes. <i>Journal of the American Chemical Society</i> , 2005 , 127, 4060-70	16.4	108
352	Clamped Hybridization Chain Reactions for the Self-Assembly of Patterned DNA Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 2171-2175	16.4	107
351	Zn(2+)-ligation DNAzyme-driven enzymatic and nonenzymatic cascades for the amplified detection of DNA. <i>Journal of the American Chemical Society</i> , 2012 , 134, 10651-8	16.4	107
350	Supramolecular cocaine-aptamer complexes activate biocatalytic cascades. <i>Journal of the American Chemical Society</i> , 2009 , 131, 5028-9	16.4	105
349	Logic gates and antisense DNA devices operating on a translator nucleic Acid scaffold. <i>ACS Nano</i> , 2009 , 3, 1831-43	16.7	104
348	Electrochemical Assembly of a CdS Semiconductor Nanoparticle Monolayer on Surfaces: Structural Properties and Photoelectrochemical Applications. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 5875-5883	16.4	103
347	pH-responsive and switchable triplex-based DNA hydrogels. <i>Chemical Science</i> , 2015 , 6, 4190-4195	9.4	102
346	Switching photonic and electrochemical functions of a DNAzyme by DNA machines. <i>Nano Letters</i> , 2013 , 13, 219-25	11.5	102
345	Proteins modified with DNAzymes or aptamers act as biosensors or biosensor labels. <i>Biosensors and Bioelectronics</i> , 2007 , 22, 2570-6	11.8	102
344	Bis-Bipyridinium Cyclophane Receptor/Au Nanoparticle Superstructures for Electrochemical Sensing Applications. <i>Chemistry of Materials</i> , 1999 , 11, 13-15	9.6	102
343	Assembly of a Zn(II)-Porphyrin-Bipyridinium Dyad and Au-Nanoparticle Superstructures on Conductive Surfaces. <i>Journal of the American Chemical Society</i> , 1999 , 121, 258-259	16.4	102
342	pH- and ligand-induced release of loads from DNA-acrylamide hydrogel microcapsules. <i>Chemical Science</i> , 2017 , 8, 3362-3373	9.4	100
341	Amplified electrochemical detection of DNA through the aggregation of Au nanoparticles on electrodes and the incorporation of methylene blue into the DNA-crosslinked structure. <i>Chemical Communications</i> , 2007 , 3544-6	5.8	98
340	Solar light induced formation of chiral 2-butanol in an enzyme-catalyzed chemical system. <i>Journal of the American Chemical Society</i> , 1984 , 106, 5352-5353	16.4	98
339	Enzyme-free amplified detection of DNA by an autonomous ligation DNAzyme machinery. <i>Journal of the American Chemical Society</i> , 2012 , 134, 5504-7	16.4	97

- 338 Characterization of palladium- β -cyclodextrin colloids as catalysts in the photosensitized reduction of bicarbonate to formate. *Journal of the American Chemical Society*, **1989**, 111, 1330-1336 16.4 97
- 337 pH-programmable DNA logic arrays powered by modular DNAzyme libraries. *Nano Letters*, **2012**, 12, 6049-54 11.5 96
- 336 Application of a Nitrospiropyran-FAD-Reconstituted Glucose Oxidase and Charged Electron Mediators as Optobioelectronic Assemblies for the Amperometric Transduction of Recorded Optical Signals: Control of the On/Off Direction of the Photoswitch. *Journal of the American Chemical Society*, **1997**, 119, 11747-11757 16.4 96
- 335 Multi-triggered Supramolecular DNA/Bipyridinium Dithienylethene Hydrogels Driven by Light, Redox, and Chemical Stimuli for Shape-Memory and Self-Healing Applications. *Journal of the American Chemical Society*, **2018**, 140, 17691-17701 16.4 96
- 334 Ag nanocluster/DNA hybrids: functional modules for the detection of nitroaromatic and RDX explosives. *Nano Letters*, **2014**, 14, 4918-22 11.5 95
- 333 A Fok I/DNA machine that duplicates its analyte gene sequence. *Journal of the American Chemical Society*, **2008**, 130, 17224-5 16.4 93
- 332 Control of the Electronic Properties of Thermosensitive Poly(N-isopropylacrylamide) and Au-Nano-particle/Poly(N-isopropylacrylamide) Composite Hydrogels upon Phase Transition. *Advanced Functional Materials*, **2002**, 12, 27 15.6 93
- 331 Diagnosing the miR-141 prostate cancer biomarker using nucleic acid-functionalized CdSe/ZnS QDs and telomerase. *Chemical Science*, **2015**, 6, 659-665 9.4 92
- 330 A Shape Memory Acrylamide/DNA Hydrogel Exhibiting Switchable Dual pH-Responsiveness. *Advanced Functional Materials*, **2015**, 25, 6867-6874 15.6 92
- 329 A three-station DNA catenane rotary motor with controlled directionality. *Nano Letters*, **2013**, 13, 2303-8 11.5 92
- 328 Kinetic Separation of Amperometric Responses of Composite Redox-Active Monolayers Assembled onto Au Electrodes: Implications to the Monolayers' Structure and Composition. *Langmuir*, **1997**, 13, 3364-3373 4 92
- 327 Synthesis of Nanowires Using Dip-Pen Nanolithography and Biocatalytic Inks. *Advanced Materials*, **2006**, 18, 713-718 24 92
- 326 Sensing of acetylcholine by a tricomponent-enzyme layered electrode using faradaic impedance spectroscopy, cyclic voltammetry, and microgravimetric quartz crystal microbalance transduction methods. *Analytical Chemistry*, **2000**, 72, 927-35 7.8 92
- 325 Integration of a Reconstituted de Novo Synthesized Hemoprotein and Native Metalloproteins with Electrode Supports for Bioelectronic and Bioelectrocatalytic Applications. *Journal of the American Chemical Society*, **1999**, 121, 6455-6468 16.4 91
- 324 Photoelectrochemical Biosensors Without External Irradiation: Probing Enzyme Activities and DNA Sensing Using Hemin/G-Quadruplex-Stimulated Chemiluminescence Resonance Energy Transfer (CRET) Generation of Photocurrents. *Journal of Physical Chemistry C*, **2012**, 116, 13827-13834 3.8 89
- 323 Cu -Modified Metal-Organic Framework Nanoparticles: A Peroxidase-Mimicking Nanoenzyme. *Small*, **2018**, 14, 1703149 11 89
- 322 Multiplexed analysis of genes using nucleic acid-stabilized silver-nanocluster quantum dots. *ACS Nano*, **2014**, 8, 11666-73 16.7 88
- 321 Chiroplasmonic DNA-based nanostructures. *Nature Reviews Materials*, **2017**, 2, 73-3 88

- 320 Surface Imprinting in Layer-by-Layer Nanostructured Films. *Advanced Functional Materials*, **2007**, 17, 1821-1827 1827
- 319 Biocatalytic cascades operating on macromolecular scaffolds and in confined environments. *Nature Catalysis*, **2020**, 3, 256-273 36.5 86
- 318 Enzyme-capped relay-functionalized mesoporous carbon nanoparticles: effective bioelectrocatalytic matrices for sensing and biofuel cell applications. *ACS Nano*, **2013**, 7, 11358-68 16.7 86
- 317 Photochemical fixation of carbon dioxide: enzymic photosynthesis of malic, aspartic, isocitric, and formic acids in artificial media. *Journal of the Chemical Society Perkin Transactions II*, **1988**, 997 86
- 316 Optical, electrical and surface plasmon resonance methods for detecting telomerase activity. *Analytical Chemistry*, **2010**, 82, 8390-7 7.8 84
- 315 A Shape-Memory DNA-Based Hydrogel Exhibiting Two Internal Memories. *Angewandte Chemie - International Edition*, **2016**, 55, 4210-4 16.4 84
- 314 Adenosine Triphosphate-Triggered Release of Macromolecular and Nanoparticle Loads from Aptamer/DNA-Cross-Linked Microcapsules. *ACS Nano*, **2015**, 9, 9078-86 16.7 82
- 313 Programmed dynamic topologies in DNA catenanes. *Angewandte Chemie - International Edition*, **2012**, 51, 2349-53 16.4 82
- 312 The Use of Impedance Spectroscopy for the Characterization of Protein-Modified ISFET Devices: Application of the Method for the Analysis of Biorecognition Processes. *Journal of Physical Chemistry B*, **2001**, 105, 4205-4213 3.4 81
- 311 Reversible Modulation of DNA-Based Hydrogel Shapes by Internal Stress Interactions. *Journal of the American Chemical Society*, **2016**, 138, 16112-16119 16.4 80
- 310 Biomaterial engineered electrodes for bioelectronics. *Faraday Discussions*, **2000**, 119-34; discussion 171-96 80
- 309 Photoinduced electron transfer across a water-oil boundary as a model for redox reaction separation. *Nature*, **1979**, 280, 823-824 50.4 78
- 308 Logic reversibility and thermodynamic irreversibility demonstrated by DNAzyme-based Toffoli and Fredkin logic gates. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 21228-33 11.5 77
- 307 Magneto-mechanical detection of nucleic acids and telomerase activity in cancer cells. *Journal of the American Chemical Society*, **2004**, 126, 1073-80 16.4 77
- 306 Lanthanide oxide-doped titanium dioxide: Effective photocatalysts for the degradation of organic pollutants. *Journal of Materials Science*, **1999**, 34, 5273-5280 4.3 77
- 305 Probing Antigen-Antibody Interactions on Electrode Supports by the Biocatalyzed Precipitation of an Insoluble Product. *Electroanalysis*, **2000**, 12, 1097-1106 3 76
- 304 From Molecular Machines to Microscale Motility of Objects: Application as Smart Materials Sensors, and Nanodevices. *Advanced Functional Materials*, **2007**, 17, 702-717 15.6 75
- 303 Magnetic Field Effects on Electrochemical Processes: A Theoretical Hydrodynamic Model. *Journal of Physical Chemistry B*, **2004**, 108, 5778-5784 3.4 75

302	DNAzyme-based 2:1 and 4:1 multiplexers and 1:2 demultiplexer. <i>Chemical Science</i> , 2014 , 5, 1074	9.4	74
301	Autonomous replication of nucleic acids by polymerization/nicking enzyme/DNAzyme cascades for the amplified detection of DNA and the aptamer-cocaine complex. <i>Analytical Chemistry</i> , 2013 , 85, 8196-203	7.8	74
300	Ion-induced DNAzyme switches. <i>Chemical Communications</i> , 2010 , 46, 3250-2	5.8	74
299	Programmed DNAzyme-Triggered Dissolution of DNA-Based Hydrogels: Means for Controlled Release of Biocatalysts and for the Activation of Enzyme Cascades. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 8923-31	9.5	73
298	Hemin/G-quadruplex-catalyzed aerobic oxidation of thiols to disulfides: application of the process for the development of sensors and aptasensors and for probing acetylcholine esterase activity. <i>Analytical Chemistry</i> , 2013 , 85, 12126-33	7.8	73
297	Photosensitized electron-transfer reactions in .beta.-cyclodextrin aqueous media: effects on dissociation of ground-state complexes, charge separation, and hydrogen evolution. <i>Journal of the American Chemical Society</i> , 1986 , 108, 4696-4700	16.4	73
296	Recent Advances in the Synthesis and Functions of Reconfigurable Interlocked DNA Nanostructures. <i>Journal of the American Chemical Society</i> , 2016 , 138, 5172-85	16.4	72
295	Smart DNA Hydrogel Integrated Nanochannels with High Ion Flux and Adjustable Selective Ionic Transport. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 7790-7794	16.4	71
294	DNA-Based Hydrogels Loaded with Au Nanoparticles or Au Nanorods: Thermoresponsive Plasmonic Matrices for Shape-Memory, Self-Healing, Controlled Release, and Mechanical Applications. <i>ACS Nano</i> , 2019 , 13, 3424-3433	16.7	71
293	Stimuli-Controlled Hydrogels and Their Applications. <i>Accounts of Chemical Research</i> , 2017 , 50, 657-658	24.3	69
292	A full-adder based on reconfigurable DNA-hairpin inputs and DNAzyme computing modules. <i>Chemical Science</i> , 2014 , 5, 3381	9.4	69
291	Mimicking Peroxidase Activities with Prussian Blue Nanoparticles and Their Cyanometalate Structural Analogues. <i>Nano Letters</i> , 2017 , 17, 4958-4963	11.5	69
290	DNA-Schalter: Grundlagen und Anwendungen. <i>Angewandte Chemie</i> , 2015 , 127, 1112-1144	3.6	69
289	The function of silicon dioxide colloids in photoinduced redox reactions. Interfacial effects on the quenching, charge separation, and quantum yields. <i>The Journal of Physical Chemistry</i> , 1981 , 85, 3277-3282		69
288	The Application of Stimuli-Responsive VEGF- and ATP-Aptamer-Based Microcapsules for the Controlled Release of an Anticancer Drug, and the Selective Targeted Cytotoxicity toward Cancer Cells. <i>Advanced Functional Materials</i> , 2016 , 26, 4262-4273	15.6	69
287	Inhibition of the in vitro replication of DNA by an aptamer-protein complex in an autonomous DNA machine. <i>Chemistry - A European Journal</i> , 2009 , 15, 11898-903	4.8	68
286	Autonomous fueled mechanical replication of nucleic acid templates for the amplified optical detection of DNA. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 2238-42	16.4	68
285	Self-assembly of aptamer-circular DNA nanostructures for controlled biocatalysis. <i>Nano Letters</i> , 2009 , 9, 4098-102	11.5	65

284	Elektronische Aptasensoren. <i>Angewandte Chemie</i> , 2007 , 119, 6528-6538	3.6	65
283	Enhanced Bioelectrocatalysis Using Single-Walled Carbon Nanotubes (SWCNTs)/Polyaniline Hybrid Systems in Thin-Film and Microrod Structures Associated with Electrodes. <i>Electroanalysis</i> , 2006 , 18, 26-34	3.4	65
282	Controlling the direction of photocurrents by means of CdS nanoparticles and cytochrome c-mediated biocatalytic cascades. <i>Chemical Communications</i> , 2006 , 1395-7	5.8	65
281	An Au nanoparticle/bisbipyridinium cyclophane-functionalized ion-sensitive field-effect transistor for the sensing of adrenaline. <i>Analytical Chemistry</i> , 1999 , 71, 5441-3	7.8	65
280	pH-Stimulated Reconfiguration and Structural Isomerization of Origami Dimer and Trimer Systems. <i>Nano Letters</i> , 2016 , 16, 6650-6655	11.5	65
279	Shape-memory and self-healing functions of DNA-based carboxymethyl cellulose hydrogels driven by chemical or light triggers. <i>Chemical Science</i> , 2018 , 9, 7145-7152	9.4	64
278	Generation of photocurrents by bis-aniline-cross-linked Pt nanoparticle/photosystem I composites on electrodes. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 14383-8	3.4	64
277	Potential-controlled molecular machinery of bipyridinium monolayer-functionalized surfaces: an electrochemical and contact angle analysis. <i>Chemical Communications</i> , 2003 , 1542	5.8	64
276	Telomerase-Generated Templates for the Growing of Metal Nanowires. <i>Nano Letters</i> , 2004 , 4, 787-792	11.5	64
275	Detection of metal ions (Cu ²⁺ , Hg ²⁺) and cocaine by using ligation DNAzyme machinery. <i>Chemistry - A European Journal</i> , 2012 , 18, 16030-6	4.8	63
274	Stereoselective and Enantioselective Electrochemical Sensing of Monosaccharides Using Imprinted Boronic Acid-Functionalized Polyphenol Films. <i>Advanced Functional Materials</i> , 2008 , 18, 478-484	15.6	63
273	A Virus Spotlighted by an Autonomous DNA Machine. <i>Angewandte Chemie</i> , 2006 , 118, 7544-7548	3.6	63
272	Switchable catalytic DNA catenanes. <i>Nano Letters</i> , 2015 , 15, 2099-103	11.5	62
271	Fluorescent DNA hydrogels composed of nucleic acid-stabilized silver nanoclusters. <i>Small</i> , 2013 , 9, 3748-52	5.2	62
270	Multiplexed Analysis of Hg ²⁺ and Ag ⁺ Ions by Nucleic Acid Functionalized CdSe/ZnS Quantum Dots and Their Use for Logic Gate Operations. <i>Angewandte Chemie</i> , 2009 , 121, 7958-7961	3.6	61
269	Chemical and photochemical DNA "gears" reversibly control stiffness, shape-memory, self-healing and controlled release properties of polyacrylamide hydrogels. <i>Chemical Science</i> , 2019 , 10, 1008-1016	9.4	60
268	Electroswitchable Photoelectrochemistry by Cu ²⁺ -Polyacrylic Acid/CdS-Nanoparticle Assemblies. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 11-15	3.4	60
267	Dual switchable CRET-induced luminescence of CdSe/ZnS quantum dots (QDs) by the hemin/G-quadruplex-bridged aggregation and deaggregation of two-sized QDs. <i>Nano Letters</i> , 2014 , 14, 6030-5	11.5	56

266	Cytochrome c-coupled photosystem I and photosystem II (PSI/PSII) photo-bioelectrochemical cells. <i>Energy and Environmental Science</i> , 2013 , 6, 2950	35.4	56
265	Assembly of photo-bioelectrochemical cells using photosystem I-functionalized electrodes. <i>Nature Energy</i> , 2016 , 1,	62.3	55
264	Metal nanoparticle-functionalized DNA tweezers: from mechanically programmed nanostructures to switchable fluorescence properties. <i>Nano Letters</i> , 2013 , 13, 3791-5	11.5	55
263	Photosensitized electron-transfer reactions in colloidal silicon dioxide systems: charge separation at a solid-aqueous interface. <i>Journal of the American Chemical Society</i> , 1981 , 103, 3203-3205	16.4	55
262	Switchable reconfiguration of an interlocked DNA olympiadane nanostructure. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 7499-503	16.4	54
261	pH-triggered switchable Mg ²⁺ -dependent DNAzymes. <i>Chemical Communications</i> , 2010 , 46, 1209-11	5.8	54
260	Integrated Electrically Contacted Glucose Oxidase/Carbon Nanotube Electrodes for the Bioelectrocatalyzed Detection of Glucose. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17883-17888	3.8	54
259	Magnetoswitchable Charge Transport and Bioelectrocatalysis Using Maghemite-Au Core-Shell Nanoparticle/Polyaniline Composites. <i>Advanced Materials</i> , 2007 , 19, 2691-2695	24	54
258	Programmed pH-Responsive Microcapsules for the Controlled Release of CdSe/ZnS Quantum Dots. <i>ACS Nano</i> , 2016 , 10, 8683-9	16.7	52
257	Nucleic acid driven DNA machineries synthesizing Mg ²⁺ -dependent DNAzymes: an interplay between DNA sensing and logic-gate operations. <i>Chemistry - A European Journal</i> , 2012 , 18, 14689-94	4.8	52
256	Stimuli-responsive metal-organic framework nanoparticles for controlled drug delivery and medical applications. <i>Chemical Society Reviews</i> , 2021 , 50, 4541-4563	58.5	52
255	Hemin-G-quadruplex-crosslinked poly--isopropylacrylamide hydrogel: a catalytic matrix for the deposition of conductive polyaniline. <i>Chemical Science</i> , 2015 , 6, 6659-6664	9.4	50
254	Rational design of supramolecular hemin/G-quadruplex-dopamine aptamer nucleozyme systems with superior catalytic performance. <i>Chemical Science</i> , 2016 , 7, 3092-3101	9.4	50
253	A dynamically programmed DNA transporter. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 4322-66.4	66.4	50
252	Gated molecular and biomolecular optoelectronic systems via photoisomerizable monolayer electrodes. <i>Journal of Physical Organic Chemistry</i> , 1998 , 11, 546-560	2.1	50
251	Surface Reconstitution of a De Novo Synthesized Hemoprotein for Bioelectronic Applications. <i>Angewandte Chemie - International Edition</i> , 1998 , 37, 3253-3256	16.4	50
250	Stimuli-Responsive Donor-Acceptor and DNA-Crosslinked Hydrogels: Application as Shape-Memory and Self-Healing Materials. <i>Advanced Functional Materials</i> , 2018 , 28, 1803111	15.6	49
249	Autonomous control of interfacial electron transfer and the activation of DNA machines by an oscillatory pH system. <i>Nano Letters</i> , 2013 , 13, 4920-4	11.5	49

248	Photosensitized NAD(P)H regeneration systems; application in the reduction of butan-2-one, pyruvic, and acetoacetic acids and in the reductive amination of pyruvic and oxoglutaric acid to amino acid. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1986 , 805		49
247	Targeted VEGF-triggered release of an anti-cancer drug from aptamer-functionalized metal-organic framework nanoparticles. <i>Nanoscale</i> , 2018 , 10, 4650-4657	7.7	48
246	Stiffness-switchable DNA-based constitutional dynamic network hydrogels for self-healing and matrix-guided controlled chemical processes. <i>Nature Communications</i> , 2019 , 10, 4774	17.4	48
245	Photo-bioelectrochemical Cells for Energy Conversion, Sensing, and Optoelectronic Applications. <i>ChemElectroChem</i> , 2014 , 1, 1778-1797	4.3	48
244	Controlling the Catalytic Functions of DNAzymes within Constitutional Dynamic Networks of DNA Nanostructures. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9662-9671	16.4	47
243	Photochemically and electrochemically triggered Au nanoparticles "sponges". <i>Journal of the American Chemical Society</i> , 2011 , 133, 6533-6	16.4	47
242	Integrated Biomolecular Quantum Dot Hybrid Systems for Bioanalytical Applications. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 2667-2677	6.4	47
241	Controlling chemical reactivity at solid-solution interfaces by means of hydrophobic magnetic nanoparticles. <i>Langmuir</i> , 2006 , 22, 1409-19	4	47
240	Impedimetric or Ion-Sensitive Field-Effect Transistor (ISFET) Aptasensors Based on the Self-Assembly of Au Nanoparticle-Functionalized Supramolecular Aptamer Nanostructures. <i>Electroanalysis</i> , 2009 , 21, 1291-1296	3	46
239	DNA Tetrahedra Modules as Versatile Optical Sensing Platforms for Multiplexed Analysis of miRNAs, Endonucleases, and Aptamer-Ligand Complexes. <i>ACS Nano</i> , 2020 , 14, 9021-9031	16.7	45
238	Light-Induced Reversible Reconfiguration of DNA-Based Constitutional Dynamic Networks: Application to Switchable Catalysis. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 8105-8109	16.4	45
237	Electrodeposition of single-metal nanoparticles on stable protein 1 membranes: application of plasmonic sensing by single nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 140-4	16.4	45
236	Coherent Activation of DNA Tweezers: A BETRESET Logic System. <i>Angewandte Chemie</i> , 2009 , 121, 3892-3895	3.6	45
235	Multiplexed analysis of genes and of metal ions using enzyme/DNAzyme amplification machineries. <i>Analytical Chemistry</i> , 2014 , 86, 11326-33	7.8	43
234	Electrochemical switching of photoelectrochemical processes at CdS QDs and photosystem I-modified electrodes. <i>ACS Nano</i> , 2012 , 6, 9258-66	16.7	43
233	pH-programmable DNAzyme nanostructures. <i>Chemical Communications</i> , 2011 , 47, 8787-9	5.8	43
232	A Crosslinked Microperoxidase-11 and Nitrate Reductase Monolayer on a Gold Electrode: An Integrated Electrically Contacted Electrode for the Bioelectrocatalyzed Reduction of NO ₃ ⁻ <i>Chemistry - A European Journal</i> , 1998 , 4, 1068-1073	4.8	42
231	Analysis of DNA and single-base mutations using magnetic particles for purification, amplification and DNAzyme detection. <i>Analyst, The</i> , 2008 , 133, 923-7	5	41

230	Solar Cells with Enhanced Photocurrent Efficiencies Using Oligoaniline-Crosslinked Au/CdS Nanoparticles Arrays on Electrodes. <i>Advanced Functional Materials</i> , 2008 , 18, 3497-3505	15.6	41
229	DNA Scaffolds for the Dictated Assembly of Left-/Right-Handed Plasmonic Au NP Helices with Programmed Chiro-Optical Properties. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9895-901	16.4	40
228	Photoinduced Electron Transfer in Supramolecular Assemblies Composed of Alkoxyanisyl-Tethered Ruthenium(II)tris(bipyridazine) Complexes and a Bipyridinium Cyclophane Electron Acceptor. <i>Journal of the American Chemical Society</i> , 1996 , 118, 655-665	16.4	40
227	Switchable Reconfiguration of a Seven-Ring Interlocked DNA Catenane Nanostructure. <i>Nano Letters</i> , 2015 , 15, 7133-7	11.5	39
226	Photoactivated Specific mRNA Detection in Single Living Cells by Coupling "Signal-on" Fluorescence and "Signal-off" Electrochemical Signals. <i>Nano Letters</i> , 2018 , 18, 5116-5123	11.5	39
225	Assembly of Microperoxidase-11 and Co(II)-Protoporphyrin IX Reconstituted Myoglobin Monolayers on Au-Electrodes: Integrated Bioelectrocatalytic Interfaces. <i>Journal of the American Chemical Society</i> , 1997 , 119, 8121-8122	16.4	39
224	DNA-Responsive SiO Nanoparticles, Metal-Organic Frameworks, and Microcapsules for Controlled Drug Release. <i>Langmuir</i> , 2018 , 34, 14692-14710	4	38
223	Single Gold Nanoparticles as Real-Time Optical Probes for the Detection of NADH-Dependent Intracellular Metabolic Enzymatic Pathways. <i>Angewandte Chemie</i> , 2011 , 123, 6921-6924	3.6	38
222	Computing with Nucleic Acids 2005 , 427-455		38
221	Photoinduced carbon dioxide fixation forming malic and isocitric acid. <i>Journal of the Chemical Society Chemical Communications</i> , 1986 , 1022		38
220	DNAzyme-Controlled Cleavage of Dimer and Trimer Origami Tiles. <i>Nano Letters</i> , 2016 , 16, 2867-72	11.5	38
219	Switchable enzyme/DNAzyme cascades by the reconfiguration of DNA nanostructures. <i>Chemistry - A European Journal</i> , 2014 , 20, 16203-9	4.8	37
218	Ultrasensitive and selective detection of alkaline-earth metal ions using ion-imprinted Au NPs composites and surface plasmon resonance spectroscopy. <i>Chemical Science</i> , 2012 , 3, 162-167	9.4	37
217	Photoelectrochemistry with ordered CdS nanoparticle/relay or photosensitizer/relay dyads on DNA scaffolds. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 8272-6	16.4	37
216	Functional biosensor systems via surface-nanoengineering of electronic elements. <i>Reviews in Molecular Biotechnology</i> , 2002 , 82, 325-55		37
215	Ternary DNA computing using 3 B multiplication matrices. <i>Chemical Science</i> , 2015 , 6, 1288-1292	9.4	36
214	Ion-responsive hemin-G-quadruplexes for switchable DNAzyme and enzyme functions. <i>Chemistry - A European Journal</i> , 2014 , 20, 5619-24	4.8	36
213	Electroanalytical Applications of Metallic Nanoparticles and Supramolecular Nanostructures. <i>Electroanalysis</i> , 2011 , 23, 13-28	3	36

212	The Imprint of Electropolymerized Polyphenol Films on Electrodes by Donor-Acceptor Interactions: Selective Electrochemical Sensing of N,N'-dimethyl-4,4'-bipyridinium (Methyl Viologen). <i>Advanced Functional Materials</i> , 2007 , 17, 3858-3863	15.6	36
211	Controlling interfacial electron transfer and electrocatalysis by pH- or ion-switchable DNA monolayer-modified electrodes. <i>Chemical Science</i> , 2013 , 4, 1137	9.4	35
210	Orthogonal Operation of Constitutional Dynamic Networks Consisting of DNA-Tweezer Machines. <i>ACS Nano</i> , 2017 , 11, 12027-12036	16.7	35
209	Gated Mesoporous SiO ₂ Nanoparticles Using K ⁺ -Stabilized G-Quadruplexes. <i>Advanced Functional Materials</i> , 2014 , 24, 5662-5670	15.6	35
208	Solvent-Switchable Photoelectrochemistry in the Presence of CdS-Nanoparticle/Acrylamide Hydrogels. <i>Advanced Materials</i> , 2002 , 14, 670-673	24	35
207	Photonic transduction of electrochemically-triggered redox-functions of polyaniline films using surface plasmon resonance spectroscopy. <i>Chemical Communications</i> , 2001 , 883-884	5.8	35
206	Triplex-DNA-Nanostrukturen: von grundlegenden Eigenschaften zu Anwendungen. <i>Angewandte Chemie</i> , 2017 , 129, 15410-15434	3.6	34
205	Synthesis and Applications of Stimuli-Responsive DNA-Based Nano- and Micro-Sized Capsules. <i>Advanced Functional Materials</i> , 2017 , 27, 1702732	15.6	34
204	A Hemin/G-Quadruplex Acts as an NADH Oxidase and NADH Peroxidase Mimicking DNAzyme. <i>Angewandte Chemie</i> , 2011 , 123, 11914-11918	3.6	34
203	Photoinduced hydrogen evolution by a zwitterionic diquat electron acceptor. The functions of silicon dioxide colloid in controlling the electron-transfer process. <i>Journal of the American Chemical Society</i> , 1983 , 105, 6228-6233	16.4	34
202	Programmed pH-Driven Reversible Association and Dissociation of Interconnected Circular DNA Dimer Nanostructures. <i>Nano Letters</i> , 2016 , 16, 4590-4	11.5	34
201	Anti-VEGF-Aptamer Modified C-Dots-A Hybrid Nanocomposite for Topical Treatment of Ocular Vascular Disorders. <i>Small</i> , 2019 , 15, e1902776	11	33
200	Molecular and biomolecular optoelectronics. <i>Pure and Applied Chemistry</i> , 2001 , 73, 535-542	2.1	33
199	Photoswitchable Association of an Azobenzene-Bipyridinium Diad to Eosin: Photostimulated On-Off Guest Binding. <i>Angewandte Chemie International Edition in English</i> , 1992 , 31, 1243-1244		33
198	Enzyme-Driven Release of Loads from Nucleic Acid-Capped Metal-Organic Framework Nanoparticles. <i>Advanced Functional Materials</i> , 2019 , 29, 1805341	15.6	33
197	Computational docking simulations of a DNA-aptamer for argininamide and related ligands. <i>Journal of Computer-Aided Molecular Design</i> , 2015 , 29, 643-54	4.2	32
196	DNA sensors and aptasensors based on the hemin/G-quadruplex-controlled aggregation of Au NPs in the presence of L-cysteine. <i>Small</i> , 2014 , 10, 2883-91	11	32
195	Programmed Synthesis by Stimuli-Responsive DNAzyme-Modified Mesoporous SiO ₂ Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 11652-6	16.4	32

194	Photoinduced Electron Transfer in Supramolecular Assemblies Composed of One-Shell and Two-Shell Dialkoxybenzene-Tethered Ru(II)tris(bipyridine) Derivatives and a Bipyridinium Cyclophane. <i>Journal of the American Chemical Society</i> , 1997 , 119, 7778-7790	16.4	32
193	Intercommunication of DNA-Based Constitutional Dynamic Networks. <i>Journal of the American Chemical Society</i> , 2018 , 140, 8721-8731	16.4	32
192	Cu ²⁺ or Fe ³⁺ Terpyridine/Aptamer Conjugates: Nucleoapzymes Catalyzing the Oxidation of Dopamine to Aminochrome. <i>ACS Catalysis</i> , 2018 , 8, 1802-1809	13.1	31
191	Amplified optical aptasensors through the endonuclease-stimulated regeneration of the analyte. <i>Chemical Science</i> , 2012 , 3, 2616	9.4	31
190	Single-Molecule Visualization of the Activity of a Zn(2+)-Dependent DNAzyme. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10550-4	16.4	30
189	Controlling the Catalytic and Optical Properties of Aggregated Nanoparticles or Semiconductor Quantum Dots Using DNA-Based Constitutional Dynamic Networks. <i>ACS Nano</i> , 2018 , 12, 10725-10735	16.7	30
188	DNA-Based Multiconstituent Dynamic Networks: Hierarchical Adaptive Control over the Composition and Cooperative Catalytic Functions of the Systems. <i>Journal of the American Chemical Society</i> , 2018 , 140, 12077-12089	16.4	30
187	Triggered Release of Loads from Microcapsule-in-Microcapsule Hydrogel Microcarriers: En-Route to an "Artificial Pancreas". <i>Journal of the American Chemical Society</i> , 2020 , 142, 4223-4234	16.4	29
186	Orthogonal Dual-Triggered Shape-Memory DNA-Based Hydrogels. <i>Chemistry - A European Journal</i> , 2016 , 22, 14504-7	4.8	29
185	Light-responsive arylazopyrazole-based hydrogels: their applications as shape-memory materials, self-healing matrices and controlled drug release systems. <i>Polymer Chemistry</i> , 2019 , 10, 4106-4115	4.9	29
184	Plugging into enzymes with light: photonic "wiring" of enzymes with electrodes for photobiofuel cells. <i>Small</i> , 2010 , 6, 1593-7	11	29
183	Formation of Supramolecular Donor-Acceptor Complexes between Bis(pyridiniummethyl)azobenzenes and Eosin in Solutions and at Solid Interfaces: Transduction into Optical and Microgravimetric Signals. <i>Angewandte Chemie International Edition in English</i> , 1997 , 36, 147-150		29
182	Thermal and photochemical control of an electrochemical process at an isomerizable spiropyran monolayer-modified Au electrode. <i>Electroanalysis</i> , 1995 , 7, 417-419	3	29
181	Programmed dissociation of dimer and trimer origami structures by aptamer-ligand complexes. <i>Nanoscale</i> , 2017 , 9, 1416-1422	7.7	28
180	miRNA-Specific Unlocking of Drug-Loaded Metal-Organic Framework Nanoparticles: Targeted Cytotoxicity toward Cancer Cells. <i>Small</i> , 2019 , 15, e1900935	11	28
179	pH-controlled release of substrates from mesoporous SiO nanoparticles gated by metal ion-dependent DNAzymes. <i>Journal of Materials Chemistry B</i> , 2014 , 2, 4449-4455	7.3	28
178	Label-Free Analysis of Thrombin or Hg ²⁺ Ions by Nucleic Acid-Functionalized Graphene Oxide Matrices Assembled on Field-Effect Transistors. <i>Electroanalysis</i> , 2013 , 25, 851-856	3	28
177	A Covalently Linked Quinone-Ferrocene Monolayer-Electrode: A pH Sensor with an Internal Reference. <i>Electroanalysis</i> , 1998 , 10, 1159-1162	3	28

176	Effects of Magnetic Field Directed Orthogonally to Surfaces on Electrochemical Processes. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 6024-6032	3.8	28
175	Redox-triggered hydrogels revealing switchable stiffness properties and shape-memory functions. <i>Polymer Chemistry</i> , 2018 , 9, 2905-2912	4.9	27
174	Redox-Switchable Binding Properties of the ATP-Aptamer. <i>Journal of the American Chemical Society</i> , 2019 , 141, 15567-15576	16.4	26
173	Donor/Acceptor-Modified Electrodes for Photoelectrochemical and Photobioelectrochemical Applications. <i>Advanced Functional Materials</i> , 2016 , 26, 7148-7155	15.6	26
172	Stimuliresponsive DNA-funktionalisierte Nano- und Mikrocontainer zur schaltbaren und kontrollierten Freisetzung. <i>Angewandte Chemie</i> , 2015 , 127, 12380-12405	3.6	26
171	Light-induced and redox-triggered uptake and release of substrates to and from mesoporous SiO nanoparticles. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 3159-3166	7.3	26
170	Consecutive feedback-driven constitutional dynamic networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 2843-2848	11.5	25
169	Metalloporphyrin/G-quadruplexes: From basic properties to practical applications. <i>Journal of Porphyrins and Phthalocyanines</i> , 2015 , 19, 65-91	1.8	25
168	DNA-based machines. <i>Topics in Current Chemistry</i> , 2014 , 354, 279-338		25
167	An integrated relay/nitrate reductase field-effect transistor for the sensing of nitrate (NO ₃ ⁻). <i>Analyst, The</i> , 2001 , 126, 652-7	5	25
166	Photoregulation of alpha-chymotrypsin activity in organic media: effects of bioimprinting. <i>Photochemistry and Photobiology</i> , 1994 , 59, 491-6	3.6	25
165	Probing ATP/ATP-Aptamer or ATP-Aptamer Mutant Complexes by Microscale Thermophoresis and Molecular Dynamics Simulations: Discovery of an ATP-Aptamer Sequence of Superior Binding Properties. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 9102-9109	3.4	25
164	Programmed Dynamic Topologies in DNA Catenanes. <i>Angewandte Chemie</i> , 2012 , 124, 2399-2403	3.6	24
163	Triggered Reversible Reconfiguration of G-Quadruplex-Bridged "Domino"-Type Origami Dimers: Application of the Systems for Programmed Catalysis. <i>ACS Nano</i> , 2018 , 12, 12324-12336	16.7	24
162	Catalyzed and Electrocatalyzed Oxidation of l-Tyrosine and l-Phenylalanine to Dopachrome by Nanozymes. <i>Nano Letters</i> , 2018 , 18, 4015-4022	11.5	23
161	Switchable Reconfiguration of an Interlocked DNA Olympiadane Nanostructure. <i>Angewandte Chemie</i> , 2014 , 126, 7629-7633	3.6	23
160	Electrochemically triggered Au nanoparticles "sponges" for the controlled uptake and release of a photoisomerizable dithienylethene guest substrate. <i>ACS Nano</i> , 2011 , 5, 5936-44	16.7	23
159	Switchable photochemical/electrochemical wiring of glucose oxidase with electrodes. <i>Analyst, The</i> , 2010 , 135, 474-6	5	23

158	Electrochemical DNA Sensors 2005 , 127-192		23
157	Photoinduced enzyme-catalysed synthesis of amino acids by visible light. <i>Journal of the Chemical Society Chemical Communications</i> , 1986 , 851		23
156	Active generation of nanoholes in DNA origami scaffolds for programmed catalysis in nanocavities. <i>Nature Communications</i> , 2019 , 10, 4963	17.4	22
155	Biocatalytic Implant of Pt Nanoclusters into Glucose Oxidase: A Method to Electrically Wire the Enzyme and to Transform It from an Oxidase to a Hydrogenase. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 2816-2819	6.4	22
154	Probing Electrocatalytic and Bioelectrocatalytic Processes by Contact Angle Measurements. <i>Langmuir</i> , 2003 , 19, 5413-5420	4	22
153	A Shape-Memory DNA-Based Hydrogel Exhibiting Two Internal Memories. <i>Angewandte Chemie</i> , 2016 , 128, 4282-4286	3.6	22
152	Continuous variables logic coupled automata using a DNAzyme cascade with feedback. <i>Chemical Science</i> , 2017 , 8, 2161-2168	9.4	21
151	Addressing, amplifying and switching DNAzyme functions by electrochemically-triggered release of metal ions. <i>Chemical Science</i> , 2015 , 6, 3544-3549	9.4	21
150	Switchable Bifunctional Stimuli-Triggered Poly-N-Isopropylacrylamide/DNA Hydrogels. <i>Angewandte Chemie</i> , 2014 , 126, 10298-10302	3.6	21
149	Amplified Detection of DNA through an Autocatalytic and Catabolic DNAzyme-Mediated Process. <i>Angewandte Chemie</i> , 2011 , 123, 309-313	3.6	21
148	Dissipative Constitutional Dynamic Networks for Tunable Transient Responses and Catalytic Functions. <i>Journal of the American Chemical Society</i> , 2020 , 142, 17480-17488	16.4	21
147	pH- and miRNA-Responsive DNA-Tetrahedra/Metal-Organic Framework Conjugates: Functional Sense-and-Treat Carriers. <i>ACS Nano</i> , 2021 , 15, 6645-6657	16.7	21
146	Coherent electronic and nuclear dynamics in a rhodamine heterodimer-DNA supramolecular complex. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 23043-23051	3.6	20
145	Immobilization of pyrroloquinoline quinone on gold by carbodiimide coupling to adsorbed polyamines: Stability comparison to attachment via a chemisorbed thiol monolayer. <i>Electroanalysis</i> , 1996 , 8, 1092-1094	3	20
144	Switchable Triggered Interconversion and Reconfiguration of DNA Origami Dimers and Their Use for Programmed Catalysis. <i>Nano Letters</i> , 2018 , 18, 2718-2724	11.5	19
143	Clamped Hybridization Chain Reactions for the Self-Assembly of Patterned DNA Hydrogels. <i>Angewandte Chemie</i> , 2017 , 129, 2203-2207	3.6	18
142	Triggered Interconversion of Dynamic Networks Composed of DNA-Tetrahedra Nanostructures. <i>Nano Letters</i> , 2019 , 19, 7540-7547	11.5	18
141	Near-infrared light-activated membrane fusion for cancer cell therapeutic applications. <i>Chemical Science</i> , 2020 , 11, 5592-5600	9.4	18

140	G-Quadruplex-Stimulated Optical and Electrocatalytic DNA Switches. <i>Small</i> , 2015 , 11, 3654-8	11	18
139	Enhancement of Bioelectrocatalytic Processes by the Rotation of Mediator-Functionalized Magnetic Particles on Electrode Surfaces: Comparison with a Rotating Disk Electrode. <i>Electroanalysis</i> , 2005 , 17, 1616-1626	3	18
138	Electronic transduction of photostimulated binding interactions at photoisomerizable monolayer electrodes: novel approaches for optobioelectronic systems and reversible immunosensor devices. <i>Biotechnology Progress</i> , 1999 , 15, 991-1002	2.8	18
137	Functional DNA Structures and Their Biomedical Applications. <i>CCS Chemistry</i> , 2020 , 2, 707-728	7.2	18
136	Controlling biocatalytic cascades with enzyme-DNA dynamic networks. <i>Nature Catalysis</i> , 2020 , 3, 941-950	3.5	18
135	Aptamer-Functionalized Micro- and Nanocarriers for Controlled Release. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 9520-9541	9.5	18
134	Thermoplasmonic-Triggered Release of Loads from DNA-Modified Hydrogel Microcapsules Functionalized with Au Nanoparticles or Au Nanorods. <i>Small</i> , 2020 , 16, e2000880	11	17
133	High-performance biosensing based on autonomous enzyme-free DNA circuits. <i>Topics in Current Chemistry</i> , 2020 , 378, 20	7.2	17
132	Photoelectrochemical cells based on bis-aniline-crosslinked CdS nanoparticle-carbon nanotube matrices associated with electrodes. <i>Journal of Materials Chemistry</i> , 2009 , 19, 7650		17
131	Probing of DNA and Single-Base Mismatches by Chemical Force Microscopy Using Peptide Nucleic Acid-Modified Sensing Tips and Functionalized Surfaces. <i>Langmuir</i> , 2001 , 17, 5134-5136	4	17
130	Dissipative Gated and Cascaded DNA Networks. <i>Journal of the American Chemical Society</i> , 2021 , 143, 5071-5079	16.4	17
129	Layered Metal Nanoparticle Structures on Electrodes for Sensing, Switchable Controlled Uptake/Release, and Photo-electrochemical Applications. <i>Small</i> , 2016 , 12, 51-75	11	17
128	Nucleic Acid Based Constitutional Dynamic Networks: From Basic Principles to Applications. <i>Journal of the American Chemical Society</i> , 2020 , 142, 21577-21594	16.4	16
127	Electron Transfer through Proteins 2005 , 15-33		16
126	Gossypol-Capped Mitoxantrone-Loaded Mesoporous SiO ₂ NPs for the Cooperative Controlled Release of Two Anti-Cancer Drugs. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14414-22	9.5	16
125	Triggered reversible substitution of adaptive constitutional dynamic networks dictates programmed catalytic functions. <i>Science Advances</i> , 2019 , 5, eaav5564	14.3	15
124	Rekonstitution eines de novo synthetisierten H ₂ proteins auf einer Oberfläche für bioelektronische Anwendungen. <i>Angewandte Chemie</i> , 1998 , 110, 3443-3447	3.6	15
123	The Neuron-Semiconductor Interface 2005 , 339-394		15

122	Effective Charge Separation in Intermolecular Complexes of an Electron Donor and a Doubly Branched Triad Assembly: A Model System for Environmental Effects Controlling Electron Transfer. <i>Angewandte Chemie International Edition in English</i> , 1995 , 34, 1005-1008		15
121	Spatiotemporal patterning of photoresponsive DNA-based hydrogels to tune local cell responses. <i>Nature Communications</i> , 2021 , 12, 2364	17.4	15
120	Two-Photon Lithographic Patterning of DNA-Coated Single-Microparticle Surfaces. <i>Nano Letters</i> , 2019 , 19, 618-625	11.5	15
119	Single and Bilayer Polyacrylamide Hydrogel-Based Microcapsules for the Triggered Release of Loads, Logic Gate Operations, and Intercommunication between Microcapsules. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 31124-31136	9.5	14
118	MicroRNA-Guided Selective Release of Loads from Micro-/Nanocarriers Using Auxiliary Constitutional Dynamic Networks. <i>ACS Nano</i> , 2020 , 14, 1482-1491	16.7	14
117	Detection of Explosives Using Field-Effect Transistors. <i>Electroanalysis</i> , 2009 , 21, 2185-2189	3	14
116	Reconstituted Enzymes on Electropolymerizable FAD-Modified Metallic Nanoparticles: Functional Units for the Assembly of Effectively Wired Enzyme Electrodes. <i>Electroanalysis</i> , 2010 , 22, 1817-1823	3	14
115	Thrombin Aptamer-Modified Metal-Organic Framework Nanoparticles: Functional Nanostructures for Sensing Thrombin and the Triggered Controlled Release of Anti-Blood Clotting Drugs. <i>Sensors</i> , 2019 , 19,	3.8	14
114	Single-Molecule Visualization of the Activity of a Zn ²⁺ -Dependent DNAzyme. <i>Angewandte Chemie</i> , 2015 , 127, 10696-10700	3.6	13
113	Control of the thermal cis to trans isomerizations of azobenzene and thioindigo derivatives by the formation of supramolecular H-bonded assemblies. <i>Journal of Physical Organic Chemistry</i> , 1995 , 8, 54-62 ^{2.1}		13
112	Conformational Dynamics Associated With Photoswitchable Binding of Spiropyran-Modified Concanavalin a. <i>Molecular Crystals and Liquid Crystals</i> , 1994 , 246, 195-199		13
111	Triggered Dimerization and Trimerization of DNA Tetrahedra for Multiplexed miRNA Detection and Imaging of Cancer Cells. <i>Small</i> , 2021 , 17, e2007355	11	13
110	Three-Dimensional Nucleic-Acid-Based Constitutional Dynamic Networks: Enhancing Diversity through Complexity of the Systems. <i>Journal of the American Chemical Society</i> , 2019 , 141, 16461-16470	16.4	12
109	Biocatalytic reversible control of the stiffness of DNA-modified responsive hydrogels: applications in shape-memory, self-healing and autonomous controlled release of insulin. <i>Chemical Science</i> , 2020 , 11, 4516-4524	9.4	12
108	Bis-Aniline-Crosslinked Enzyme-Metal Nanoparticle Composites on Electrodes for Bioelectronic Applications. <i>Israel Journal of Chemistry</i> , 2010 , 50, 321-332	3.4	12
107	Light-Induced Reversible Reconfiguration of DNA-Based Constitutional Dynamic Networks: Application to Switchable Catalysis. <i>Angewandte Chemie</i> , 2018 , 130, 8237-8241	3.6	11
106	Switchable supramolecular catalysis using DNA-templated scaffolds. <i>Chemical Communications</i> , 2016 , 52, 2153-6	5.8	11
105	Molecularly Imprinted Sites Translate into Macroscopic Shape-Memory Properties of Hydrogels. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 34282-34291	9.5	11

104	Metal Nanoparticle-Loaded Mesoporous Carbon Nanoparticles: Electrical Contacting of Redox Proteins and Electrochemical Sensing Applications. <i>Electroanalysis</i> , 2015 , 27, 2150-2157	3	11
103	Molecular Optobioelectronics 2005 , 309-338		11
102	Effects controlling the conformational selectivity and association parameters of H-bonded assemblies between di- and triaminotriazines and bemegride. <i>Journal of Physical Organic Chemistry</i> , 1993 , 6, 29-43	2.1	11
101	Aptamer-Modified Cu-Functionalized C-Dots: Versatile Means to Improve Nanozyme Activities-"Aptananozymes". <i>Journal of the American Chemical Society</i> , 2021 , 143, 11510-11519	16.4	11
100	A Bis-Zn -Pyridyl-Salen-Type Complex Conjugated to the ATP Aptamer: An ATPase-Mimicking Nucleoapzyme. <i>ChemBioChem</i> , 2020 , 21, 53-58	3.8	11
99	Smart DNA Hydrogel Integrated Nanochannels with High Ion Flux and Adjustable Selective Ionic Transport. <i>Angewandte Chemie</i> , 2018 , 130, 7916-7920	3.6	10
98	Block Copolymer Patterns as Templates for the Electrocatalyzed Deposition of Nanostructures on Electrodes and for the Generation of Surfaces of Controlled Wettability. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1440-6	9.5	10
97	Photostimulated Interactions of Bipyridinium-Azobenzene with a β -Aminocyclodextrin Monolayer-Functionalized Electrode: An Optoelectronic Assembly for the Amperometric Transduction of Recorded Optical Signals. <i>Israel Journal of Chemistry</i> , 1997 , 37, 185-195	3.4	10
96	Effects of Electrostatic and π -Interactions on the Stabilities of Xanthene Dye β ,4 π -Bipyridinium Complexes: Structural Design of a Geared Supramolecular Machine. <i>Israel Journal of Chemistry</i> , 1992 , 32, 53-59	3.4	10
95	Aptamer-modified DNA tetrahedra-gated metal-organic framework nanoparticle carriers for enhanced chemotherapy or photodynamic therapy. <i>Chemical Science</i> , 2021 , 12, 14473-14483	9.4	10
94	Transient Dissipative Optical Properties of Aggregated Au Nanoparticles, CdSe/ZnS Quantum Dots, and Supramolecular Nucleic Acid-Stabilized Ag Nanoclusters. <i>Journal of the American Chemical Society</i> , 2021 , 143, 17622-17632	16.4	10
93	Stimuliresponsive, auf Biomolekl π n basierende Hydrogele und ihre Anwendungen. <i>Angewandte Chemie</i> , 2020 , 132, 15458-15496	3.6	10
92	DNAzyme- and light-induced dissipative and gated DNA networks. <i>Chemical Science</i> , 2021 , 12, 11204-11212	3.2	10
91	Controlled Vectorial Electron Transfer and Photoelectrochemical Applications of Layered Relay/Photosensitizer-Imprinted Au Nanoparticle Architectures on Electrodes. <i>Small</i> , 2016 , 12, 1605-14	11	9
90	Supramolecular micelle-based nucleoapzymes for the catalytic oxidation of dopamine to aminochrome. <i>Chemical Communications</i> , 2016 , 52, 5561-4	5.8	9
89	Bioelectronics π An Introduction 2005 , 1-13		9
88	Layered Nanoparticle Architectures on Surfaces for Sensing and Electronic Functions. <i>ACS Symposium Series</i> , 2003 , 88-105	0.4	9
87	Probing photoinduced electron transfer reactions by in situ electrochemical contact angle measurements. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 4236	3.6	9

86	Electrochemical Transduction of Liposome-Amplified DNA Sensing. <i>Angewandte Chemie</i> , 2000 , 112, 970-973	3.6	9
85	Biosensors with Amperometric Detection of Enzymatically Controlled pH-Changes. <i>Electroanalysis</i> , 2000 , 12, 731-735	3	9
84	Light-Stimulated Formation and Dissociation of Supramolecular Donor-Acceptor Complexes between Eosin and Bipyridinium Azobenzenes: Design of Molecular Electronic Devices for the Piezoelectrical Transduction of Recorded Optical Signals. <i>Israel Journal of Chemistry</i> , 1996 , 36, 407-419	3.4	9
83	Metal Ion-Terpyridine-Functionalized L-Tyrosinamide Aptamers: Nucleoapzymes for Oxygen Insertion into C-H Bonds and the Transformation of L-Tyrosinamide into Amidodopachrome. <i>Advanced Functional Materials</i> , 2019 , 29, 1901484	15.6	8
82	Drug Carriers: Stimuli-Responsive Nucleic Acid-Based Polyacrylamide Hydrogel-Coated Metal-Organic Framework Nanoparticles for Controlled Drug Release (Adv. Funct. Mater. 8/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870053	15.6	8
81	Sensing and Biosensing with Semiconductor Quantum Dots. <i>Israel Journal of Chemistry</i> , 2012 , 52, 1125-1136	13.6	8
80	Electronic transduction of biocatalytic transformations on nucleic acid-functionalized surfaces. <i>Chemical Communications</i> , 2001 , 1492-1493	5.8	8
79	Multiplexed and amplified chemiluminescence resonance energy transfer (CRET) detection of genes and microRNAs using dye-loaded hemin/G-quadruplex-modified UiO-66 metal-organic framework nanoparticles. <i>Chemical Science</i> , 2021 , 12, 4810-4818	9.4	8
78	Evolution of Nucleic-Acid-Based Constitutional Dynamic Networks Revealing Adaptive and Emergent Functions. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 12238-12245	16.4	7
77	Modelling Photosynthesis with Zn-Protoporphyrin All-DNA G-Quadruplex/Aptamer Scaffolds. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 9163-9170	16.4	7
76	Application of DNA Machineries for the Barcode Patterned Detection of Genes or Proteins. <i>Analytical Chemistry</i> , 2018 , 90, 6468-6476	7.8	7
75	Photoelectrochemistry with Ordered CdS Nanoparticle/Relay or Photosensitizer/Relay Dyads on DNA Scaffolds. <i>Angewandte Chemie</i> , 2008 , 120, 8396-8400	3.6	7
74	Biomaterial-Nanoparticle Hybrid Systems for Sensing and Electronic Devices 2005 , 231-264		7
73	Biomaterial-Nanoparticle Hybrid Systems: Synthesis, Properties, and Applications 2005 , 368-421		7
72	Effektive Ladungstrennung in einem intermolekularen Komplex aus Elektronendonator und doppelarmiger Triade: ein Modellsystem für die Kontrolle des Elektronentransfers durch Umgebungseffekte. <i>Angewandte Chemie</i> , 1995 , 107, 1112-1115	3.6	7
71	Characterization of the Hydrogenation Process of Allyl Alcohol at a Pt Electrode Using a Double Galvanostatic Pulse Technique. <i>Journal of the Electrochemical Society</i> , 1991 , 138, 434-439	3.9	7
70	Imaging of Cancer Cells and Dictated Cytotoxicity Using Aptamer-Guided Hybridization Chain Reaction (HCR)-Generated G-Quadruplex Chains. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 21673-21678	16.4	7
69	Constitutional Dynamic Networks-Guided Synthesis of Programmed "Genes", Transcription of mRNAs, and Translation of Proteins. <i>Journal of the American Chemical Society</i> , 2020 , 142, 21460-21468	16.4	6

68	Modeling Gene Expression Instability by Programmed and Switchable Polymerization/Nicking DNA Nanomachineries. <i>ACS Nano</i> , 2020 , 14, 5046-5052	16.7	6
67	Artificial Photosynthesis with Electron Acceptor/Photosensitizer-Aptamer Conjugates. <i>Nano Letters</i> , 2019 , 19, 6621-6628	11.5	6
66	Evolution of Nucleic-Acid-Based Constitutional Dynamic Networks Revealing Adaptive and Emergent Functions. <i>Angewandte Chemie</i> , 2019 , 131, 12366-12373	3.6	6
65	Programmed Synthesis by Stimuli-Responsive DNAzyme-Modified Mesoporous SiO ₂ Nanoparticles. <i>Angewandte Chemie</i> , 2015 , 127, 11818-11822	3.6	6
64	Reconstituted Redox Enzymes on Electrodes: From Fundamental Understanding of Electron Transfer at Functionalized Electrode Interfaces to Biosensor and Biofuel Cell Applications 2005 , 35-97		6
63	Application of Electrically Contacted Enzymes for Biosensors 2005 , 99-126		6
62	A Reference Electrode for Organic Solvents Based on Modified Polyethylenimine Loaded with Fe (CN) ₆ ³⁻ /4- <i>Journal of the Electrochemical Society</i> , 1993 , 140, L25-L27	3.9	6
61	Photosensitized H ₂ Evolution and NADPH Formation by Photosensitizer/Carbon Nitride Hybrid Nanoparticles. <i>Nano Letters</i> , 2019 , 19, 9121-9130	11.5	6
60	Stimuli-responsive hydrogel microcapsules for the amplified detection of microRNAs. <i>Nanoscale</i> , 2021 , 13, 16799-16808	7.7	6
59	Enzyme-Guided Selection and Cascaded Emergence of Nanostructured Constitutional Dynamic Networks. <i>Nano Letters</i> , 2020 , 20, 5451-5457	11.5	5
58	An N,N'-dialkyl-4,4'-bipyridinium-modified titanium-dioxide photocatalyst for water remediation--observation and application of supramolecular effects in photocatalytic degradation of pi-donor organic compounds. <i>Fresenius Journal of Analytical Chemistry</i> , 2001 , 371, 621-8		5
57	Photoregulation of the Activities of Proteins. <i>Molecular Crystals and Liquid Crystals</i> , 1994 , 246, 201-205		5
56	Photoschaltbare elektrische Kommunikation von Glucose-Oxidase und Glutathion-Reduktase mit Elektrodenoberflächen durch photoisomerisierbare Redoxvermittler. <i>Angewandte Chemie</i> , 1995 , 107, 1730-1733	3.6	5
55	Enzyme-Loaded Hemin/G-Quadruplex-Modified ZIF-90 Metal-Organic Framework Nanoparticles: Bioreactor Nanozymes for the Cascaded Oxidation of N-hydroxy-L-arginine and Sensing Applications.. <i>Small</i> , 2022 , e2104420	11	5
54	Dictated Emergence of Nucleic Acid-Based Constitutional Dynamic Networks by DNA Replication Machineries. <i>Journal of the American Chemical Society</i> , 2021 , 143, 241-251	16.4	5
53	Aptamer-Functionalized Hybrid Nanostructures for Sensing, Drug Delivery, Catalysis and Mechanical Applications. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	5
52	Gated Dissipative Dynamic Artificial Photosynthetic Model Systems. <i>Journal of the American Chemical Society</i> , 2021 , 143, 12120-12128	16.4	5
51	Zn(II)-Protoporphyrin IX-Based Photosensitizer-Imprinted Au-Nanoparticle-Modified Electrodes for Photoelectrochemical Applications. <i>Advanced Functional Materials</i> , 2015 , 25, 6470-6477	15.6	4

50	Artificial Photosynthetic Transformations Through Biocatalysis and Biomimetic Systems. <i>Advances in Photochemistry</i> , 2007 , 217-290		4
49	Functional Constitutional Dynamic Networks Revealing Evolutionary Reproduction/Variation/Selection Principles. <i>Journal of the American Chemical Society</i> , 2020 , 142, 14437-14442	16.4	4
48	DNA-based constitutional dynamic networks as functional modules for logic gates and computing circuit operations. <i>Chemical Science</i> , 2021 , 12, 5473-5483	9.4	4
47	Cryo-EM photosystem I structure reveals adaptation mechanisms to extreme high light in <i>Chlorella ohadii</i> . <i>Nature Plants</i> , 2021 , 7, 1314-1322	11.5	4
46	Transient Out-of-Equilibrium Nucleic Acid-Based Dissipative Networks and Their Applications. <i>Advanced Functional Materials</i> , 2020 , 10, 2200799	15.6	4
45	Dissipative biocatalytic cascades and gated transient biocatalytic cascades driven by nucleic acid networks. <i>Science Advances</i> , 2022 , 8, eabn3534	14.3	4
44	Modelling Photosynthesis with ZnII-Protoporphyrin All-DNA G-Quadruplex/Aptamer Scaffolds. <i>Angewandte Chemie</i> , 2020 , 132, 9248-9255	3.6	3
43	A Dynamically Programmed DNA Transporter. <i>Angewandte Chemie</i> , 2012 , 124, 4398-4402	3.6	3
42	Biohybrid Electrochemical Devices 2010 , 333-376		3
41	SUPRAMOLECULAR DONOR-ACCEPTOR COMPLEXES OF DICHLOROFLUORESCEIN AND cis- AND trans-4,4'-(N,N'-DIMETHYLPYRIDINIUM)ETHYLENE. <i>Journal of Physical Organic Chemistry</i> , 1997 , 10, 435-444	2.1	3
40	Interfacing Biological Molecules with Group IV Semiconductors for Bioelectronic Sensing 2005 , 209-230		3
39	DNA-Templated Electronics 2005 , 265-285		3
38	Molecular complexes between octaethyltetrathia porphyrin dication and electron donors: A spectroscopic and electrochemical study. <i>Journal of Physical Organic Chemistry</i> , 1995 , 8, 647-658	2.1	3
37	Nanoparticle- and Nanorod-Biomaterial Hybrid Systems for Sensor, Circuitry and Motor Applications. <i>E-Journal of Surface Science and Nanotechnology</i> , 2005 , 3, 1-7	0.7	3
36	Programmed catalysis within stimuli-responsive mechanically unlocked nanocavities in DNA origami tiles. <i>Chemical Science</i> , 2020 , 12, 341-351	9.4	3
35	Mimicking Functions of Native Enzymes or Photosynthetic Reaction Centers by Nucleoapzymes and Photonucleoapzymes. <i>Biochemistry</i> , 2021 , 60, 956-965	3.2	3
34	Redox-responsive and light-responsive DNA-based hydrogels and their applications. <i>Reactive and Functional Polymers</i> , 2021 , 166, 104983	4.6	3
33	Surface Reconstitution of a De Novo Synthesized Hemoprotein for Bioelectronic Applications 1998 , 37, 3253		3

32	Semiconductor Quantum Dots for Analytical and Bioanalytical Applications	455-511	3
31	Drug Delivery: ATP-Responsive Aptamer-Based Metal-Organic Framework Nanoparticles (NMOFs) for the Controlled Release of Loads and Drugs (Adv. Funct. Mater. 37/2017). <i>Advanced Functional Materials</i> , 2017 , 27,		15.6 2
30	Electrodeposition of Single-Metal Nanoparticles on Stable Protein 1 Membranes: Application of Plasmonic Sensing by Single Nanoparticles. <i>Angewandte Chemie</i> , 2012 , 124, 144-148		3.6 2
29	pH-Switchable Redox Reactions and Bioelectrocatalytic Processes Using Au Nanoparticles-Modified Electrodes. <i>Electroanalysis</i> , 2013 , 25, 1605-1612		3 2
28	Glucose Oxidase-Mediated Reduction Processes: H ₂ Evolution, Hydrogenation of Acetylene, and Reduction of NO ₃ ⁻ by Glucose. <i>ChemCatChem</i> , 2011 , 3, 1885-1888		5.2 2
27	Biochemical fuel cells	2010 ,	2
26	Visible Light Activated Organic Room-Temperature Phosphorescence Based on Triplet-to-Singlet Förster-Resonance Energy Transfer. <i>Advanced Optical Materials</i> , 2102701		8.1 2
25	Au -Functionalized UiO-67 Metal-Organic Framework Nanoparticles: O and H ₂ Generating Nanozymes and Their Antibacterial Functions.. <i>Small</i> , 2022 , e2200548		11 2
24	Drug Delivery: The Application of Stimuli-Responsive VEGF- and ATP-Aptamer-Based Microcapsules for the Controlled Release of an Anticancer Drug, and the Selective Targeted Cytotoxicity toward Cancer Cells (Adv. Funct. Mater. 24/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 4423-4423		15.6 1
23	Inside Cover: Programmed Dynamic Topologies in DNA Catenanes (Angew. Chem. Int. Ed. 10/2012). <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 2256-2256		16.4 1
22	Innentitelbild: Programmed Dynamic Topologies in DNA Catenanes (Angew. Chem. 10/2012). <i>Angewandte Chemie</i> , 2012 , 124, 2302-2302		3.6 1
21	Biocatalytic Growth of Nanoparticles for Sensors and Circuitry	99-121	1
20	Nanobiotechnology. <i>FEBS Journal</i> , 2007 , 274, 301-301		5.7 1
19	S-Layer Proteins in Bioelectronic Applications	2005 , 395-426	1
18	MOF-templated synthesis of cobalt-doped zinc oxide superparticles for detection of the 3-hydroxy-2-butanone microbial biomarker. <i>Sensors and Actuators B: Chemical</i> , 2022 , 358, 131482		8.5 1
17	Construction of a Homogeneous Enzyme-Free Autocatalytic Nucleic Acid Machinery for High-Performance Intracellular Imaging of MicroRNA. <i>CCS Chemistry</i> , 1-14		7.2 1
16	Bioelectronics and Optobioelectronics—the Future of Science. <i>Electrochemistry</i> , 2000 , 68, 845-845		1.2 1
15	Metal Nanoparticles: Layered Metal Nanoparticle Structures on Electrodes for Sensing, Switchable Controlled Uptake/Release, and Photo-electrochemical Applications (Small 1/2016). <i>Small</i> , 2016 , 12, 2-2		11 1

14	Imaging of Cancer Cells and Dictated Cytotoxicity Using Aptamer-Guided Hybridization Chain Reaction (HCR)-Generated G-Quadruplex Chains. <i>Angewandte Chemie</i> , 2021 , 133, 21841-21846	3.6	1
13	Frontispiece: Bioinspired Artificial Photosynthetic Systems. <i>Chemistry - A European Journal</i> , 2022 , 28,	4.8	1
12	Nucleoapzymes: catalyst-aptamer conjugates as enzyme-mimicking structures. <i>Emerging Topics in Life Sciences</i> , 2019 , 3, 493-499	3.5	0
11	Controlling electrocatalytic, photoelectrocatalytic, and load release processes using soft material-modified electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2022 , 904, 115926	4.1	0
10	Integration of photocatalytic and dark-operating catalytic biomimetic transformations through DNA-based constitutional dynamic networks. <i>Nature Communications</i> , 2021 , 12, 4224	17.4	0
9	Innenrücktitelbild: Electrodeposition of Single-Metal Nanoparticles on Stable Protein 1 Membranes: Application of Plasmonic Sensing by Single Nanoparticles (Angew. Chem. 1/2012). <i>Angewandte Chemie</i> , 2012 , 124, 283-283	3.6	
8	Inside Back Cover: Electrodeposition of Single-Metal Nanoparticles on Stable Protein 1 Membranes: Application of Plasmonic Sensing by Single Nanoparticles (Angew. Chem. Int. Ed. 1/2012). <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 277-277	16.4	
7	DNA Switches and Machines 2017 , 434-473		
6	DNA Switches: G-Quadruplex-Stimulated Optical and Electrocatalytic DNA Switches (Small 30/2015). <i>Small</i> , 2015 , 11, 3653-3653	11	
5	Electrochemical Aptasensors 61-86		
4	Probing Biomaterials on Surfaces at the Single Molecule Level for Bioelectronics 2005 , 193-208		
3	Single Biomolecule Manipulation for Bioelectronics 2005 , 287-307		
2	Biomolecule Nanoparticle Hybrid Systems 139		
1	Switchable DNA Origami Nanostructures and Their Applications 2022 , 197-240		