LudÄ›k Havran

List of Publications by Year
in descending order

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79 papers	3,058 citations	109137 35 h-index	161609 54 g-index
83 all docs	83 docs citations	83 times ranked	1611 citing authors

#	Article	IF	Citations
1	Aminophenylâ€•and Nitrophenylâ€Labeled Nucleoside Triphosphates: Synthesis, Enzymatic Incorporation, and Electrochemical Detection. Angewandte Chemie - International Edition, 2008, 47, 2059-2062.	7.2	131
2	Electrochemical enzyme-linked immunoassay in a DNA hybridization sensor. Analytica Chimica Acta, 2002, 469, 73-83.	2.6	123
3	Ferrocenylethynyl Derivatives of Nucleoside Triphosphates: Synthesis, Incorporation, Electrochemistry, and Bioanalytical Applications. Chemistry - A European Journal, 2007, 13, 9527-9533.	1.7	117
4	Recent progress in electrochemical sensors and assays for DNA damage and repair. TrAC - Trends in Analytical Chemistry, 2016, 79, 160-167.	5.8	113
5	DNA hybridization at microbeads with cathodic stripping voltammetric detection. Talanta, 2002, 56, 919-930.	2.9	103
6	Constant Current Chronopotentiometric Stripping Analysis of Bioactive Peptides at Mercury and Carbon Electrodes. Electroanalysis, 1998, 10, 403-409.	1.5	101
7	Baseâ€Modified DNA Labeled by [Ru(bpy)₃]²⁺ and [Os(bpy)₃]²⁺ Complexes: Construction by Polymerase Incorporation of Modified Nucleoside Triphosphates, Electrochemical and Luminescent Properties, and Applications. Chemistry - A European Journal, 2009, 15, 1144-1154.	1.7	96
8	Electrochemical Detection of DNA Triplet Repeat Expansion. Journal of the American Chemical Society, 2004, 126, 6532-6533.	6.6	90
9	Reduction and oxidation of peptide nucleic acid and DNA at mercury and carbon electrodes. Journal of Electroanalytical Chemistry, 1999, 476, 71-80.	1.9	88
10	Two-Surface Strategy in Electrochemical DNA Hybridization Assays: Detection of Osmium-Labeled Target DNA at Carbon Electrodes. Electroanalysis, 2003, 15, 431-440.	1.5	85
11	Voltammetric microanalysis of DNA adducts with osmium tetroxide,2,2â€²-bipyridine using a pyrolytic graphite electrode. Talanta, 2002, 56, 867-874.	2.9	79
12	â€œMulticolorâ€•Electrochemical Labeling of DNA Hybridization Probes with Osmium Tetroxide Complexes. Analytical Chemistry, 2007, 79, 1022-1029.	3.2	78
13	The â€œPresodiumâ€•Catalysis of Electroreduction of Hydrogen Ions on Mercury Electrodes by Metallothionein. An Investigation by Constant Current Derivative Stripping Chronopotentiometry. Electroanalysis, 2000, 12, 274-279.	1.5	69
14	Use of Polished and Mercury Film-Modified Silver Solid Amalgam Electrodes in Electrochemical Analysis of DNA. Electroanalysis, 2005, 17, 452-459.	1.5	64
15	Multiply osmium-labeled reporter probes for electrochemical DNA hybridization assays: detection of trinucleotide repeats. Biosensors and Bioelectronics, 2004, 20, 985-994.	5.3	63
16	Voltammetric Behavior of Osmium-Labeled DNA at Mercury Meniscus-Modified Solid Amalgam Electrodes. Detecting DNA Hybridization. Electroanalysis, 2006, 18, 186-194.	1.5	62
17	Tail-labelling of DNA probes using modified deoxynucleotide triphosphates and terminal deoxynucleotidyl tranferase. Application in electrochemical DNA hybridization and protein-DNA binding assays. Organic and Biomolecular Chemistry, 2011, 9, 1366.	1.5	59
18	Anthraquinone as a Redox Label for DNA: Synthesis, Enzymatic Incorporation, and Electrochemistry of Anthraquinoneâ€Modified Nucleosides, Nucleotides, and DNA. Chemistry - A European Journal, 2011, 17, 14063-14073.	1.7	59

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19	Adsorptive Transfer Stripping AC Voltammetry of DNA Complexes with Intercalators. Electroanalysis, 2000, 12, 926-934.	1.5	58
20	Azidophenyl as a click-transformable redox label of DNA suitable for electrochemical detection of DNAâ€“protein interactions. Chemical Science, 2015, 6, 575-587.	3.7	57
21	Benzofurazane as a New Redox Label for Electrochemical Detection of DNA: Towards Multipotential Redox Coding of DNA Bases. Chemistry - A European Journal, 2013, 19, 12720-12731.	1.7	54
22	Determination of nanogram quantities of osmium-labeled single stranded DNA by differential pulse stripping voltammetry. Bioelectrochemistry, 2002, 55, 119-121.	2.4	52
23	Electroactivity of Avidin and Streptavidin. Avidin Signals at Mercury and Carbon Electrodes Respond to Biotin Binding. Electroanalysis, 2004, 16, 1139-1148.	1.5	52
24	Chronopotentiometric stripping of DNA at mercury electrodes. Electroanalysis, 1997, 9, 990-997.	1.5	51
25	Effect of Spinâ”Orbit Coupling on Reduction Potentials of Octahedral Ruthenium(II/III) and Osmium(II/III) Complexes. Journal of the American Chemical Society, 2008, 130, 10947-10954.	6.6	50
26	Electrochemical Stripping Techniques in Analysis of Nucleic Acids and their Constituents. Current Analytical Chemistry, 2008, 4, 250-262.	0.6	50
27	Covalent Labeling of Nucleosides with VIII- and VI-Valent Osmium Complexes. Electroanalysis, 2007, 19, 1281-1287.	1.5	48
28	Purines Bearing Phenanthroline or Bipyridine Ligands and Their RuII Complexes in Position 8 as Model Compounds for Electrochemical DNA Labeling â€“ Synthesis, Crystal Structure, Electrochemistry, Quantum Chemical Calculations, Cytostatic and Antiviral Activity. European Journal of Inorganic Chemistry, 2007, 2007, 1752-1769.	1.0	45
29	Two Superhelix Density-Dependent DNA Transitions Detected by Changes in DNA Adsorption/Desorption Behavior. Biochemistry, 1998, 37, 4853-4862.	1.2	44
30	Ex situ Voltammetry and Chronopotentiometry of Doxorubicin at a Pyrolytic Graphite Electrode: Redox and Catalytic Properties and Analytical Applications. Electroanalysis, 2009, 21, 2139-2144.	1.5	43
31	Voltammetric behavior of DNA modified with osmium tetroxide 2,2â€²-bipyridine at mercury electrodes. Bioelectrochemistry, 2004, 63, 239-243.	2.4	40
32	Alkylsulfanylphenyl Derivatives of Cytosine and 7â€Đeazaadenine Nucleosides, Nucleotides and Nucleoside Triphosphates: Synthesis, Polymerase Incorporation to DNA and Electrochemical Study. Chemistry - A European Journal, 2011, 17, 5833-5841.	1.7	40
33	Carborane- or Metallacarborane-Linked Nucleotides for Redox Labeling. Orthogonal Multipotential Coding of all Four DNA Bases for Electrochemical Analysis and Sequencing. Journal of the American Chemical Society, 2021, 143, 7124-7134.	6.6	37
34	Mercury Film Electrode as a Sensor for the Detection of DNA Damage. Electroanalysis, 2000, 12, 1422-1425.	1.5	36
35	Electrochemical monitoring of phytochelatin accumulation in Nicotiana tabacum cells exposed to sub-cytotoxic and cytotoxic levels of cadmium. Analytica Chimica Acta, 2006, 558, 171-178.	2.6	35
36	Tuning of Oxidation Potential of Ferrocene for Ratiometric Redox Labeling and Coding of Nucleotides and DNA. Chemistry - A European Journal, 2020, 26, 1286-1291.	1.7	33

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37	Voltammetry of osmium-modified DNA at a mercury film electrode. Bioelectrochemistry, 2004, 63, 245-248.	2.4	32
38	Aqueous Heck Cross-Coupling Preparation of Acrylate-Modified Nucleotides and Nucleoside Triphosphates for Polymerase Synthesis of Acrylate-Labeled DNA. Journal of Organic Chemistry, 2013, 78, 9627-9637.	1.7	32
39	Chronopotentiometric detection of DNA strand breaks with mercury electrodes modified with supercoiled DNA. Electroanalysis, 1997, 9, 1033-1034.	1.5	31
40	Polymerase synthesis of oligonucleotides containing a single chemically modified nucleobase for site-specific redox labelling. Chemical Communications, 2013, 49, 4652.	2.2	31
41	Osmium Tetroxide, 2,2â€²-Bipyridine: Electroactive Marker for Probing Accessibility of Tryptophan Residues in Proteins. Analytical Chemistry, 2008, 80, 4598-4605.	3.2	29
42	Osmium Tetroxide Complexes as Versatile Tools for Structure Probing and Electrochemical Analysis of Biopolymers. Current Analytical Chemistry, 2011, 7, 35-50.	0.6	29
43	Sensitive voltammetric detection of DNA damage at carbon electrodes using DNA repair enzymes and an electroactive osmium marker. Analytical and Bioanalytical Chemistry, 2008, 391, 1751-1758.	1.9	27
44	Electrode potential-controlled DNA damage in the presence of copper ions and their complexes. Bioelectrochemistry, 2002, 55, 25-27.	2.4	25
45	Tetrathiafulvaleneâ€Labelled Nucleosides and Nucleoside Triphosphates: Synthesis, Electrochemistry and the Scope of Their Polymerase Incorporation into DNA. European Journal of Organic Chemistry, 2009, 2009, 3519-3525.	1.2	25
46	A label-free electrochemical test for DNA-binding activities of tumor suppressor protein p53 using immunoprecipitation at magnetic beads. Analytica Chimica Acta, 2010, 668, 166-170.	2.6	25
47	Determination of the Level of DNA Modification with Cisplatin by Catalytic Hydrogen Evolution at Mercury-Based Electrodes. Analytical Chemistry, 2010, 82, 2969-2976.	3.2	24
48	Synthesis of Hydrazoneâ€Modified Nucleotides and Their Polymerase Incorporation onto DNA for Redox Labeling. ChemPlusChem, 2012, 77, 652-662.	1.3	24
49	Adsorptive Stripping Voltammetry of Denatured DNA on Hg/Ag Electrode. Electroanalysis, 2000, 12, 960-962.	1.5	21
50	Determination of glutathione-S-transferase traces in preparations of p53 C-terminal domain (aa320â€“393). Bioelectrochemistry, 2002, 55, 115-118.	2.4	19
51	Redox Labels and Indicators Based on Transition Metals and Organic Electroactive Moieties for Electrochemical Nucleic Acids Sensing. Current Organic Chemistry, 2011, 15, 2936-2949.	0.9	19
52	Voltammetric Study of dsDNA Modified by Multi-redox Label Based on N-methyl-4-hydrazino-7-nitrobenzofurazan. Electrochimica Acta, 2014, 129, 348-357.	2.6	16
53	Electrochemical behaviour of 2,4-dinitrophenylhydrazi(o)ne as multi-redox centre DNA label at mercury meniscus modified silver solid amalgam electrode. Electrochimica Acta, 2014, 126, 122-131.	2.6	16
54	Electrochemical detection of DNA binding by tumor suppressor p53 protein using osmium-labeled oligonucleotide probes and catalytic hydrogen evolution at the mercury electrode. Analytical and Bioanalytical Chemistry, 2014, 406, 5843-5852.	1.9	15

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55	G-quadruplex-based structural transitions in 15-mer DNA oligonucleotides varying in lengths of internal oligo(dG) stretches detected by voltammetric techniques. Analytical and Bioanalytical Chemistry, 2015, 407, 5817-5826.	1.9	15
56	The reduction of doxorubicin at a mercury electrode and monitoring its interaction with DNA using constant current chronopotentiometry. Collection of Czechoslovak Chemical Communications, 2009, 74, 1727-1738.	1.0	14
57	Sensing mispaired thymines in DNA heteroduplexes using an electroactive osmium marker: towards electrochemical SNP probing. Analytical and Bioanalytical Chemistry, 2011, 400, 197-204.	1.9	14
58	Hydrogen Evolution Facilitates Reduction of DNA Guanine Residues at the Hanging Mercury Drop Electrode: Evidence for a Chemical Mechanism. Electroanalysis, 2016, 28, 2785-2790.	1.5	13
59	Phenothiazine-linked nucleosides and nucleotides for redox labelling of DNA. Organic and Biomolecular Chemistry, 2017, 15, 6984-6996.	1.5	13
60	Voltammetry of two single-stranded isomeric end-labeled â€“SH deoxyoligonucleotides on mercury electrodes. Talanta, 2002, 56, 915-918.	2.9	12
61	Biophysical and electrochemical studies of proteinâ€“nucleic acid interactions. Monatshefte FÃ¼r Chemie, 2015, 146, 723-739.	0.9	12
62	DNA Hybridization on Membraneâ€Modified Carbon Electrodes. Analytical Letters, 2005, 38, 2493-2507.	1.0	10
63	Methoxyphenol and Dihydrobenzofuran as Oxidizable Labels for Electrochemical Detection of DNA. ChemPlusChem, 2014, 79, 1703-1712.	1.3	9
64	Voltammetric analysis of 5-(4-Azidophenyl)-2â€²-deoxycytidine nucleoside and azidophenyl-labelled single- and double-stranded DNAs. Electrochimica Acta, 2016, 215, 72-83.	2.6	9
65	Electrochemical behavior of anthraquinone- and nitrophenyl-labeled deoxynucleoside triphosphates: a contribution to development of multipotential redox labeling of DNA. Monatshefte FÃ¼r Chemie, 2015, 146, 839-847.	0.9	8
66	Enzyme-linked electrochemical detection of DNA fragments amplified by PCR in the presence of a biotinylated deoxynucleoside triphosphate using disposable pencil graphite electrodes. Monatshefte FÃ¼r Chemie, 2015, 146, 849-855.	0.9	7
67	Voltammetric behavior of a candidate anticancer drug roscovitine at carbon electrodes in aqueous buffers and a cell culture medium. Monatshefte FÃ¼r Chemie, 2019, 150, 461-467.	0.9	7
68	Vicinal Diolâ€Tethered Nucleobases as Targets for DNA Redox Labeling with Osmate Complexes. ChemBioChem, 2020, 21, 171-180.	1.3	6
69	Electrochemical Activity of Wedelolactone and Probing its Interaction with DNA Using Voltammetry at a Carbon Electrode. Electroanalysis, 2015, 27, 2268-2271.	1.5	5
70	Interactions of fluorescent dye SYBR Green I with natural and 7-deazaguanine-modified DNA studied by fluorescence and electrochemical methods. Monatshefte FÃ¼r Chemie, 2016, 147, 13-20.	0.9	5
71	Electrochemical behavior of 7-deazaguanine- and 7-deazaadenine-modified DNA at the hanging mercury drop electrode. Monatshefte FÃ¼r Chemie, 2016, 147, 3-11.	0.9	4
72	Protein p53 Binding to Cisplatinâ€modified DNA Targets Evaluated by Modificationâ€specific Electrochemical Immunoprecipitation Assay. Electroanalysis, 2017, 29, 319-323.	1.5	3

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73	Butylacrylateâ€nucleobase Conjugates as Targets for Twoâ€step Redox Labeling of DNA with an Osmium Tetroxide Complex. Electroanalysis, 2018, 30, 371-377.	1.5	3
74	Fast enzyme-linked electrochemical sensing of DNA hybridization at pencil graphite electrodes. Application to detect gene deletion in a human cell culture. Journal of Electroanalytical Chemistry, 2020, 862, 113951.	1.9	3
75	Voltammetric sensing of glycans modified by osmium(VI)ligand complexes. The influence of N-acetyl neuraminic acid. Electrochimica Acta, 2021, 369, 137658.	2.6	3
76	Simple Electrochemical Characterization of ortho â€Carborane and some of its exo â€Skeletal Derivatives. Electroanalysis, 2020, 32, 1859-1866.	1.5	2
77	The â€œPresodiumâ€•Catalysis of Electroreduction of Hydrogen Ions on Mercury Electrodes by Metallothionein. An Investigation by Constant Current Derivative Stripping Chronopotentiometry. , 2000, 12, 274.		1
78	Novel base-functionalized DNA. Efficient methodology for construction and bioanalytical applications. Nucleic Acids Symposium Series, 2008, 52, 53-54.	0.3	0
79	Aminophenyl- and nitrophenyl-labeled DNA. Synthesis by polymerase incorporation of nucleoside triphosphates and electrochemical properties. , 2008, , .		0