Ki Soo Park

List of Publications by Year
in descending order

119 papers	2,984 citations	159358 30 h-index	214527 47 g-index
123 all docs	123 docs citations	123 times ranked	3473 citing authors

#	Article	IF	Citations
1	â€œIllusionaryâ€•Polymerase Activity Triggered by Metal Ions: Use for Molecular Logicâ€Gate Operations. Angewandte Chemie - International Edition, 2010, 49, 9757-9760.	7.2	150
2	Labelâ€Free Colorimetric Detection of Nucleic Acids Based on Targetâ€Induced Shielding Against the Peroxidaseâ€Mimicking Activity of Magnetic Nanoparticles. Small, 2011, 7, 1521-1525.	5.2	145
3	A label-free method for detecting biological thiols based on blocking of Hg2+-quenching of fluorescent gold nanoclusters. Biosensors and Bioelectronics, 2013, 45, 65-69.	5.3	136
4	Nucleic acid aptamer-based methods for diagnosis of infections. Biosensors and Bioelectronics, 2018, 102, 179-188.	5.3	128
5	Eco-friendly synthesis and biomedical applications of gold nanoparticles: A review. Microchemical Journal, 2020, 152, 104296.	2.3	100
6	Food waste-driven N-doped carbon dots: Applications for Fe3+ sensing and cell imaging. Materials Science and Engineering C, 2019, 102, 106-112.	3.8	87
7	Simple and Universal Platform for Logic Gate Operations Based on Molecular Beacon Probes. Small, 2012, 8, 2203-2212.	5.2	81
8	Ultrafast colorimetric detection of nucleic acids based on the inhibition of the oxidase activity of cerium oxide nanoparticles. Chemical Communications, 2014, 50, 9577-9580.	2.2	74
9	Enzyme-free and label-free miRNA detection based on target-triggered catalytic hairpin assembly and fluorescence enhancement of DNA-silver nanoclusters. Sensors and Actuators B: Chemical, 2018, 260, 140-145.	4.0	64
10	A Novel Colorimetric Immunoassay Utilizing the Peroxidase Mimicking Activity of Magnetic Nanoparticles. International Journal of Molecular Sciences, 2013, 14, 9999-10014.	1.8	61
11	Intrinsic peroxidase-like activity of sonochemically synthesized protein copper nanoflowers and its application for the sensitive detection of glucose. Sensors and Actuators B: Chemical, 2019, 283, 749-754.	4.0	60
12	A simple and eco-friendly one-pot synthesis of nuclease-resistant DNAâ€“inorganic hybrid nanoflowers. Journal of Materials Chemistry B, 2017, 5, 2231-2234.	2.9	55
13	Mismatched pyrrolo-dC-modified duplex DNA as a novel probe for sensitive detection of silver ions. Chemical Communications, 2012, 48, 4549.	2.2	52
14	A fluorescent G-quadruplex probe for the assay of base excision repair enzyme activity. Chemical Communications, 2015, 51, 13744-13747.	2.2	51
15	Advances in Exosome Analysis Methods with an Emphasis on Electrochemistry. Analytical Chemistry, 2020, 92, 12733-12740.	3.2	51
16	Exosomes for Nonâ€Invasive Cancer Monitoring. Biotechnology Journal, 2019, 14, e1800430.	1.8	47
17	Rapid identification of health careâ€“associated infections with an integrated fluorescence anisotropy system. Science Advances, 2016, 2, e1600300.	4.7	44
18	A label-free and enzyme-free signal amplification strategy for a sensitive RNase H activity assay. Nanoscale, 2017, 9, 16149-16153.	2.8	42

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19	A label-free fluorescent assay for deoxyribonuclease I activity based on DNA-templated silver nanocluster/graphene oxide nanocomposite. Biosensors and Bioelectronics, 2017, 93, 293-297.	5.3	41
20	Technological applications arising from the interactions of DNA bases with metal ions. Current Opinion in Biotechnology, 2014, 28, 17-24.	3.3	39
21	Target-controlled formation of silver nanoclusters in abasic site-incorporated duplex DNA for label-free fluorescence detection of theophylline. Nanoscale, 2014, 6, 9977-9982.	2.8	39
22	Rapid and ultrasensitive detection of microRNA by target-assisted isothermal exponential amplification coupled with poly (thymine)-templated fluorescent copper nanoparticles. Nanotechnology, 2016, 27, 425502.	1.3	36
23	A Personal Glucose Meter for Label-Free and Washing-Free Biomolecular Detection. Analytical Chemistry, 2018, 90, 11340-11343.	3.2	35
24	A sensitive dual colorimetric and fluorescence system for assaying the activity of alkaline phosphatase that relies on pyrophosphate inhibition of the peroxidase activity of copper ions. Analyst, The, 2014, 139, 4691-4695.	1.7	32
25	Metal ion triggers for reversible switching of DNA polymerase. Chemical Communications, 2016, 52, 4868-4871.	2.2	32
26	Universal, colorimetric microRNA detection strategy based on target-catalyzed toehold-mediated strand displacement reaction. Nanotechnology, 2018, 29, 085501.	1.3	32
27	A DNA-templated silver nanocluster probe for label-free, turn-on fluorescence-based screening of homo-adenine binding molecules. Biosensors and Bioelectronics, 2015, 64, 618-624.	5.3	31
28	Target DNA induced switches of DNA polymerase activity. Chemical Communications, 2015, 51, 9942-9945.	2.2	31
29	Split T7 promoter-based isothermal transcription amplification for one-step fluorescence detection of SARS-CoV-2 and emerging variants. Biosensors and Bioelectronics, 2022, 208, 114221.	5.3	31
30	An electrochemical one-step system for assaying methyltransferase activity based on transport of a quantum dot signaling tracer. Biosensors and Bioelectronics, 2013, 49, 542-546.	5.3	30
31	Rapid and label-free, electrochemical DNA detection utilizing the oxidase-mimicking activity of cerium oxide nanoparticles. Electrochemistry Communications, 2019, 99, 5-10.	2.3	29
32	Synthesis of DNA-templated copper nanoparticles with enhanced fluorescence stability for cellular imaging. Mikrochimica Acta, 2019, 186, 479.	2.5	28
33	Glucose oxidase-like activity of cerium oxide nanoparticles: use for personal glucose meter-based label-free target DNA detection. Theranostics, 2020, 10, 4507-4514.	4.6	27
34	DNA barcode-based detection of exosomal microRNAs using nucleic acid lateral flow assays for the diagnosis of colorectal cancer. Talanta, 2022, 242, 123306.	2.9	26
35	Dual rolling circle amplification-enabled ultrasensitive multiplex detection of exosome biomarkers using electrochemical aptasensors. Analytica Chimica Acta, 2022, 1205, 339762.	2.6	26
36	Signature mRNA markers in extracellular vesicles for the accurate diagnosis of colorectal cancer. Journal of Biological Engineering, 2020, 14, 4.	2.0	25

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37	Label-free fluorescent detection of alkaline phosphatase with vegetable waste-derived green carbon probes. Sensors and Actuators B: Chemical, 2018, 262, 469-476.	4.0	24
38	Highly sensitive electrochemical detection of circulating EpCAM-positive tumor cells using a dual signal amplification strategy. Sensors and Actuators B: Chemical, 2021, 343, 130087.	4.0	24
39	Ultrafast sonochemical synthesis of protein-inorganic nanoflowers. International Journal of Nanomedicine, 2015, 10 Spec Iss, 137.	3.3	23
40	Characterization of blended cellulose/biopolymer films prepared using ionic liquid. Cellulose, 2020, 27, 5101-5119.	2.4	23
41	Compact and Filter-Free Luminescence Biosensor for Mobile in Vitro Diagnoses. ACS Nano, 2019, 13, 11698-11706.	7.3	22
42	Loop-mediated isothermal amplification-based nucleic acid lateral flow assay for the specific and multiplex detection of genetic markers. Analytica Chimica Acta, 2022, 1205, 339781.	2.6	21
43	Pyrrolo-dC modified duplex DNA as a novel probe for the sensitive assay of base excision repair enzyme activity. Biosensors and Bioelectronics, 2017, 98, 210-214.	5.3	20
44	A simple approach for rapid and cost-effective quantification of extracellular vesicles using a fluorescence polarization technique. Journal of Biological Engineering, 2019, 13, 31.	2.0	20
45	Dual-functionalized gold nanoparticles probe based bio-barcode immuno-PCR for the detection of glyphosate. Food Chemistry, 2021, 338, 128133.	4.2	20
46	Development of a rapid and simple tetracycline detection system based on metal-enhanced fluorescence by europium-doped AgNP@SiO₂ coreâ€“shell nanoparticles. RSC Advances, 2018, 8, 24322-24327.	1.7	19
47	A novel electrochemical method to detect theophylline utilizing silver ions captured within abasic site-incorporated duplex DNA. Biosensors and Bioelectronics, 2015, 67, 590-594.	5.3	18
48	Aptamer-mediated universal enzyme assay based on target-triggered DNA polymerase activity. Biosensors and Bioelectronics, 2017, 88, 48-54.	5.3	18
49	Ultrasensitive DNA detection based on target-triggered rolling circle amplification and fluorescent poly(thymine)-templated copper nanoparticles. RSC Advances, 2018, 8, 1958-1962.	1.7	18
50	Determination of RNase H activity via real-time monitoring of target-triggered rolling circle amplification. Mikrochimica Acta, 2018, 185, 53.	2.5	18
51	Target-Induced Aggregation of Gold Nanoparticles for Colorimetric Detection of Bisphenol A. Journal of Nanomaterials, 2019, 2019, 1-7.	1.5	18
52	Simple colorimetric detection of organophosphorus pesticides using naturally occurring extracellular vesicles. Microchemical Journal, 2020, 158, 105130.	2.3	18
53	Highly sensitive multiplex detection of microRNA using light-up RNA aptamers. Sensors and Actuators B: Chemical, 2021, 330, 129410.	4.0	18
54	The effects of oxygen flow rate and anion doping on the performance of the LiNio2 electrode for lithium secondary batteries. Korean Journal of Chemical Engineering, 2002, 19, 791-796.	1.2	17

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55	Enzymeâ€Free Colorimetric Detection of Cu²⁺ by Utilizing Targetâ€Triggered DNAzymes and Toeholdâ€Mediated DNA Strand Displacement Events. Chemistry - A European Journal, 2017, 23, 17379-17383.	1.7	17
56	Fluorescence resonance energy transfer using DNA-templated copper nanoparticles for ratiometric detection of microRNAs. Analyst, The, 2021, 146, 1844-1847.	1.7	17
57	Fluorescence Polarization Based Nucleic Acid Testing for Rapid and Costâ€Effective Diagnosis of Infectious Disease. Chemistry - A European Journal, 2015, 21, 16359-16363.	1.7	16
58	A simple, sensitive, and label-free assay for alkaline phosphatase activity based on target-promoted exponential strand displacement amplification. Sensors and Actuators B: Chemical, 2018, 262, 1001-1005.	4.0	16
59	Flap endonuclease-initiated enzymatic repairing amplification for ultrasensitive detection of target nucleic acids. Nanoscale, 2019, 11, 3633-3638.	2.8	16
60	Chemical Transformation of Astaxanthin from Haematococcus pluvialis Improves Its Antioxidative and Anti-inflammatory Activities. ACS Omega, 2020, 5, 19120-19130.	1.6	16
61	Nucleic acid lateral flow assay for simultaneous detection of hygiene indicator bacteria. Analytical and Bioanalytical Chemistry, 2021, 413, 5003-5011.	1.9	16
62	Equipment-free, salt-mediated immobilization of nucleic acids for nucleic acid lateral flow assays. Sensors and Actuators B: Chemical, 2022, 351, 130975.	4.0	16
63	A simple and sensitive detection of small moleculeâ€“protein interactions based on terminal protection-mediated exponential strand displacement amplification. Analyst, The, 2018, 143, 2023-2028.	1.7	15
64	An impedimetric determination of alkaline phosphatase activity based on the oxidation reaction mediated by Cu2+ bound to poly-thymine DNA. RSC Advances, 2018, 8, 11241-11246.	1.7	15
65	Portable glucose meter-based label-free strategy for target DNA detection. Sensors and Actuators B: Chemical, 2020, 310, 127808.	4.0	15
66	Sensitive and simultaneous detection of hygiene indicator bacteria using an enhanced CRISPR/Cas system in combination with a portable fluorescence detector. Sensors and Actuators B: Chemical, 2022, 365, 131871.	4.0	15
67	Label-free and washing-free alkaline phosphatase assay using a personal glucose meter. Journal of Biological Engineering, 2019, 13, 51.	2.0	14
68	A one-step and label-free, electrochemical DNA detection using metal ion-mediated molecular beacon probe. Electrochemistry Communications, 2019, 100, 64-69.	2.3	14
69	Sensitive Electrochemical Detection of Tryptophan Using a Hemin/G-Quadruplex Aptasensor. Chemosensors, 2020, 8, 100.	1.8	14
70	In SituBiosynthesis of a Metal Nanoparticle Encapsulated in Alginate Gel for Imageable Drug-Delivery System. ACS Applied Materials & Interfaces, 2021, 13, 36697-36708.	4.0	14
71	Facile Coating Strategy to Functionalize Inorganic Nanoparticles for Biosensing. Bioconjugate Chemistry, 2017, 28, 33-37.	1.8	13
72	Nanomagnetic System for Rapid Diagnosis of Acute Infection. ACS Nano, 2017, 11, 11425-11432.	7.3	12

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73	Nucleic acid-based fluorescent methods for the determination of DNA repair enzyme activities: A review. Analytica Chimica Acta, 2019, 1060, 30-44.	2.6	12
74	Synthesis of Exosome-Based Fluorescent Gold Nanoclusters for Cellular Imaging Applications. International Journal of Molecular Sciences, 2021, 22, 4433.	1.8	12
75	An electrochemically reversible DNA switch. Electrochemistry Communications, 2013, 27, 100-103.	2.3	11
76	A magneto-DNA nanoparticle system for the rapid and sensitive diagnosis of enteric fever. Scientific Reports, 2016, 6, 32878.	1.6	11
77	Sensitive detection of DNA from Chlamydia trachomatis by using flap endonuclease-assisted amplification and graphene oxide-based fluorescence signaling. Mikrochimica Acta, 2019, 186, 330.	2.5	11
78	Simple and label-free strategy for terminal transferase assay using a personal glucose meter. Chemical Communications, 2020, 56, 8912-8915.	2.2	11
79	Colorimetric detection of individual biothiols by tailor made reactions with silver nanoprisms. Scientific Reports, 2021, 11, 3937.	1.6	11
80	Knockdown of YAP/TAZ sensitizes tamoxifen-resistant MCF7 breast cancer cells. Biochemical and Biophysical Research Communications, 2022, 601, 73-78.	1.0	11
81	The effects of sulfur doping on the performance of O3-Li0.7[Li1/12Ni1/12Mn5/6]O2 powder. Korean Journal of Chemical Engineering, 2005, 22, 560-565.	1.2	10
82	A Sexually Transmitted Disease (STD) DNA chip for the diagnosis of genitourinary infections. Biosensors and Bioelectronics, 2011, 26, 4314-4319.	5.3	10
83	A signal-on, colorimetric determination of deoxyribonuclease I activity utilizing the photoinduced synthesis of gold nanoparticles. Nanoscale, 2018, 10, 4339-4343.	2.8	10
84	Sensitive and specific detection of proteins based on target-responsive DNA polymerase activity. Analytica Chimica Acta, 2019, 1059, 80-85.	2.6	10
85	Melamine-promoted formation of bright and stable DNAâ€“silver nanoclusters and their antimicrobial properties. Journal of Materials Chemistry B, 2019, 7, 2512-2517.	2.9	10
86	A Syringe-Based and Centrifugation-Free DNA Extraction Procedure for the Rapid Detection of Bacteria. Chemosensors, 2021, 9, 167.	1.8	10
87	Protein-induced fluorescence enhancement for a simple and universal detection of protein/small molecule interactions. RSC Advances, 2018, 8, 39913-39917.	1.7	9
88	Morphological study of cellulosic hydrogel nanofiber for biomedical application. Cellulose, 2019, 26, 9107-9118.	2.4	9
89	Fluorescence, turn-on detection of melamine based on its dual functions as fluorescence enhancer of DNA-AgNCs and Hg(II)-scavenger. Artificial Cells, Nanomedicine and Biotechnology, 2019, 47, 621-625.	1.9	9
90	Lead-start isothermal polymerase amplification controlled by DNAzymatic switches. Nanoscale, 2022, 14, 7828-7836.	2.8	9

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91	Smartphoneâ€based portable wireless optical system for the detection of target analytes. Biotechnology Journal, 2017, 12, 1600581.	1.8	8
92	Abasic Siteâ€Assisted Inhibition of Nicking Endonuclease Activity for the Sensitive Determination of Uracil DNA Glycosylase. Biotechnology Journal, 2018, 13, e1700603.	1.8	8
93	Fluorescence polarization-based detection of cancer-related mutations using target-initiated rolling circle amplification. Analyst, The, 2019, 144, 4149-4152.	1.7	8
94	Facile silicification of plastic surface for bioassays. Chemical Communications, 2017, 53, 2134-2137.	2.2	7
95	The use of a 2-aminopurine-containing split G-quadruplex for sequence-specific DNA detection. Artificial Cells, Nanomedicine and Biotechnology, 2018, 46, S950-S955.	1.9	7
96	Fluorescent S1 nuclease assay utilizing exponential strand displacement amplification. Analyst, The, 2019, 144, 3364-3368.	1.7	7
97	Targetâ€Activated DNA Polymerase Activity for Sensitive RNase H Activity Assay. Biotechnology Journal, 2019, 14, e1800645.	1.8	7
98	Washing-free Electrochemical Strategy to Detect Target DNA Utilizing Peroxidase Mimicking DNAzyme. Biotechnology and Bioprocess Engineering, 2020, 25, 707-714.	1.4	7
99	Highly specific nuclear labeling via in situ formation of fluorescent copper nanoparticles. Nanoscale, 2021, 13, 81-84.	2.8	7
100	Three-Way Junction-Induced Isothermal Amplification with High Signal-to-Background Ratio for Detection of Pathogenic Bacteria. Sensors, 2021, 21, 4132.	2.1	7
101	Rapid and label-free strategy for the sensitive detection of Hg²⁺ based on target-triggered exponential strand displacement amplification. RSC Advances, 2017, 7, 47143-47147.	1.7	6
102	Fluorescence nucleobase analogue-based strategy with high signal-to-noise ratio for ultrasensitive detection of food poisoning bacteria. Analyst, The, 2020, 145, 6307-6312.	1.7	6
103	Promoter engineering improves transcription efficiency in biomolecular assays. Chemical Communications, 2021, 57, 1619-1622.	2.2	6
104	Pyrophosphate-Enhanced Oxidase Activity of Cerium Oxide Nanoparticles for Colorimetric Detection of Nucleic Acids. Sensors, 2021, 21, 7567.	2.1	6
105	Polymerization-sensitive switch-on monomer for terminal transferase activity assay. Artificial Cells, Nanomedicine and Biotechnology, 2019, 47, 256-259.	1.9	5
106	Portable glucose meter-utilized label-free and washing-free telomerase assay. Analyst, The, 2020, 145, 5578-5583.	1.7	5
107	T7 Endonuclease I-mediated voltammetric detection of KRAS mutation coupled with horseradish peroxidase for signal amplification. Mikrochimica Acta, 2022, 189, 75.	2.5	5
108	The effects of Ni doping on the performance of O3-lithium manganese oxide material. Korean Journal of Chemical Engineering, 2004, 21, 983-988.	1.2	4

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109	Structural and electrochemical characteristics of Li0.7[Li1/6Mn5/6]O2 synthesized using sol-gel method. Korean Journal of Chemical Engineering, 2005, 22, 46-51.	1.2	4
110	Universal probe amplification: Multiplex screening technologies for genetic variations. Biotechnology Journal, 2015, 10, 45-55.	1.8	4
111	Modulation of CRISPR/Cas12a trans-cleavage activity by various DNA-modifying enzymes. Microchemical Journal, 2022, 180, 107606.	2.3	4
112	Universally applicable, quantitative PCR method utilizing fluorescent nucleobase analogs. RSC Advances, 2018, 8, 37391-37395.	1.7	3
113	Inside Cover: â€œIllusionaryâ€•Polymerase Activity Triggered by Metal Ions: Use for Molecular Logicâ€Gate Operations (Angew. Chem. Int. Ed. 50/2010). Angewandte Chemie - International Edition, 2010, 49, 9540-9540.	7.2	2
114	A double-nanoprobe based immunoassay for rapid and sensitive detection of phenanthrene and some low-mass homologues. Microchemical Journal, 2020, 158, 105169.	2.3	2
115	Erratum to â€œTechnological applications arising from the interactions of DNA bases with metal ionsâ€• [Curr Opin Biotechnol 2014, 28:17â€“24]. Current Opinion in Biotechnology, 2014, 28, 171.	3.3	0
116	Metal ion triggers for reversible switching of DNA polymerase. New Biotechnology, 2016, 33, S168.	2.4	0
117	Cellulose-based eco-friendly wafer-cleaning reagent. Cellulose, 2020, 27, 3405-3412.	2.4	0
118	Metal Ions-Triggered Polymerase Activity and Its Use for the Development of Molecular Logic Gates. IFMBE Proceedings, 2011, , 1066-1069.	0.2	0
119	Characterization of Rajath Bhasma and Evaluation of Its Toxicity in Zebrafish Embryos and Its Antimicrobial Activity. Journal of Microbiology and Biotechnology, 2020, 30, 920-925.	0.9	0