Jae-Chul Pyun

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	One-step immunoassay for food allergens based on screened mimotopes from autodisplayed FV-antibody library. Biosensors and Bioelectronics, 2022, 202, 113976.	5.3	12
2	Capacitive biosensor based on vertically paired electrodes for the detection of SARS-CoV-2. Biosensors and Bioelectronics, 2022, 202, 113975.	5.3	20
3	Electrochemical One-Step Immunoassay Based on Switching Peptides and Pyrolyzed Carbon Electrodes. ACS Sensors, 2022, 7, 215-224.	4.0	8
4	Quantitative analysis of vitamin D using m/MALDI-TOF mass spectrometry based on a parylene matrix chip. Journal of Analytical Science and Technology, 2022, 13, .	1.0	3
5	Laser desorption/ionization mass spectrometry of L-thyroxine (T4) using combi-matrix of α-cyano-4-hydroxycinnamic acid (CHCA) and graphene. Journal of Analytical Science and Technology, 2022, 13, .	1.0	3
6	Surface Functionalization and Bonding of Chemically Inert Parylene Microfluidics Using Parylene-A Adhesive Layer. Biochip Journal, 2022, 16, 168-174.	2.5	9
7	Antibody-Mediated Screening of Peptide Inhibitors for Monoamine Oxidase-B (MAO-B) from an Autodisplayed F _V Library. Bioconjugate Chemistry, 2022, 33, 1166-1178.	1.8	5
8	Homogeneous One-Step Immunoassay Based on Switching Peptides for Detection of the Influenza Virus. Analytical Chemistry, 2022, 94, 9627-9635.	3.2	3
9	Plasma deposition of parylene-C film. Materials Today Communications, 2021, 26, 101834.	0.9	10
10	Diagnosis of severe sepsis using phospholipids enzymatic assay based on cyclic voltammetry. Enzyme and Microbial Technology, 2021, 144, 109728.	1.6	3
11	Competitive Immunoassay of SARS-CoV-2 Using Pig Sera-Derived Anti-SARS-CoV-2 Antibodies. Biochip Journal, 2021, 15, 100-108.	2.5	20
12	Anti-SARS-CoV-2 Nucleoprotein Antibodies Derived from Pig Serum with a Controlled Specificity. Biochip Journal, 2021, 15, 195.	2.5	15
13	Microbial biosensor for Salmonella using anti-bacterial antibodies isolated from human serum. Enzyme and Microbial Technology, 2021, 144, 109721.	1.6	11
14	Screening of Fv Antibodies with Specific Binding Activities to Monosodium Urate and Calcium Pyrophosphate Dihydrate Crystals for the Diagnosis of Gout and Pseudogout. ACS Applied Bio Materials, 2021, 4, 3388-3397.	2.3	15
15	Switching-peptides for one-step immunoassay and its application to the diagnosis of human hepatitis B. Biosensors and Bioelectronics, 2021, 178, 112996.	5.3	11
16	Laserâ€Induced Surface Reconstruction of Nanoporous Auâ€Modified TiO ₂ Nanowires for In Situ Performance Enhancement in Desorption and Ionization Mass Spectrometry. Advanced Functional Materials, 2021, 31, 2102475.	7.8	22
17	Cesium Lead Bromide (CsPbBr ₃) Perovskite Quantum Dot-Based Photosensor for Chemiluminescence Immunoassays. ACS Applied Materials & Interfaces, 2021, 13, 29392-29405.	4.0	34
18	Screening of biotin-binding FV-antibodies from autodisplayed FV-library on E.Âcoli outer membrane. Analytica Chimica Acta, 2021, 1169, 338627.	2.6	10

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19	Isolation of Antibodies Against the Spike Protein of SARS-CoV from Pig Serum for Competitive Immunoassay. Biochip Journal, 2021, 15, 396-405.	2.5	15
20	Rapid Analysis of Bacterial Contamination in Platelets without Pre-Enrichment Using Pig Serum-Derived Antibodies. ACS Applied Bio Materials, 2021, 4, 7779-7789.	2.3	4
21	Fluorescein and Rhodamine B-Binding Domains from Autodisplayed Fv-Antibody Library. Bioconjugate Chemistry, 2021, 32, 2213-2223.	1.8	7
22	Photothermal Structural Dynamics of Au Nanofurnace for In Situ Enhancement in Desorption and Ionization. Small, 2021, 17, e2103745.	5.2	15
23	Quantitative analysis of galactose using LDI-TOF MS based on a TiO2 nanowire chip. Journal of Analytical Science and Technology, 2021, 12, .	1.0	2
24	Photosensors-based on cadmium sulfide (CdS) nanostructures: a review. Journal of the Korean Ceramic Society, 2021, 58, 631-644.	1.1	15
25	Recyclable, Antibacterial, Isoporous Through-Hole Membrane Air Filters with Hydrothermally Grown ZnO Nanorods. Nanomaterials, 2021, 11, 3381.	1.9	3
26	Highly sensitive in situ-synthesized cadmium sulfide (CdS) nanowire photosensor for chemiluminescent immunoassays. Enzyme and Microbial Technology, 2020, 133, 109457.	1.6	11
27	Modified parylene-N films as chemical microenvironments for differentiation and spheroid formation of osteoblast cells. Scientific Reports, 2020, 10, 15219.	1.6	3
28	Elevated miR-16-5p induces somatostatin receptor 2 expression in neuroendocrine tumor cells. PLoS ONE, 2020, 15, e0240107.	1.1	5
29	Electropolymerization in a confined nanospace: synthesis of PEDOT nanoparticles in emulsion droplet reactors. Chemical Communications, 2020, 56, 9624-9627.	2.2	13
30	Pig Sera-derived Anti-SARS-CoV-2 Antibodies in Surface Plasmon Resonance Biosensors. Biochip Journal, 2020, 14, 358-368.	2.5	38
31	Coffee Ring Effect Free TiO ₂ Nanotube Array for Quantitative Laser Desorption/Ionization Mass Spectrometry. ACS Applied Nano Materials, 2020, 3, 9249-9259.	2.4	19
32	An On-chip Chemiluminescent Immunoassay for Bacterial Detection using in Situ-synthesized Cadmium Sulfide Nanowires with Passivation Layers. Biochip Journal, 2020, 14, 268-278.	2.5	25
33	Diagnosis and mortality prediction of sepsis via lysophosphatidylcholine 16:0 measured by MALDI-TOF MS. Scientific Reports, 2020, 10, 13833.	1.6	9
34	One-step immunoassay without washing steps for influenza A virus detection using ISFET. Biosensors and Bioelectronics, 2020, 165, 112341.	5.3	11
35	A TiO ₂ nanowire photocatalyst for dual-ion production in laser desorption/ionization (LDI) mass spectrometry. Chemical Communications, 2020, 56, 4420-4423.	2.2	14
36	Simultaneous Analysis of Multiple Cancer Biomarkers Using MALDI-TOF Mass Spectrometry Based on a Parylene-Matrix Chip. Journal of the American Society for Mass Spectrometry, 2020, 31, 917-926.	1.2	14

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37	Application of a thermophoretic immunoassay in the diagnosis of lupus using outer membrane particles from E. coli. Biosensors and Bioelectronics, 2020, 156, 112110.	5.3	4
38	Modulation of SIRT3 expression through CDK4/6 enhances the anti-cancer effect of sorafenib in hepatocellular carcinoma cells. BMC Cancer, 2020, 20, 332.	1.1	19
39	Nanostructured TiO2 Materials for Analysis of Gout-Related Crystals Using Laser Desorption/Ionization Time-of-Flight (LDI-ToF) Mass Spectrometry. Analytical Chemistry, 2019, 91, 11283-11290.	3.2	18
40	MALDI-TOF Mass Spectrometry Based on Parylene-Matrix Chip for the Analysis of Lysophosphatidylcholine in Sepsis Patient Sera. Analytical Chemistry, 2019, 91, 14719-14727.	3.2	25
41	Parylene-Coated Polytetrafluoroethylene-Membrane-Based Portable Urea Sensor for Real-Time Monitoring of Urea in Peritoneal Dialysate. Sensors, 2019, 19, 4560.	2.1	12
42	Identification of new binding proteins of focal adhesion kinase using immunoprecipitation and mass spectrometry. Scientific Reports, 2019, 9, 12908.	1.6	9
43	Three-Dimensional Paper-Based Microfluidic Analytical Devices Integrated with a Plasma Separation Membrane for the Detection of Biomarkers in Whole Blood. ACS Applied Materials & Interfaces, 2019, 11, 36428-36434.	4.0	58
44	Synergistic Effect of the Heterostructure of Au Nanoislands on TiO ₂ Nanowires for Efficient Ionization in Laser Desorption/Ionization Mass Spectrometry. ACS Applied Materials & Interfaces, 2019, 11, 20509-20520.	4.0	33
45	Surface display of sialyltransferase on the outer membrane of Escherichia coli and ClearColi. Enzyme and Microbial Technology, 2019, 128, 1-8.	1.6	6
46	Hypersensitive electrochemical immunoassays based on highly N-doped silicon carbide (SiC) electrode. Analytica Chimica Acta, 2019, 1073, 30-38.	2.6	13
47	Thermophoretic diagnosis of autoimmune diseases based on Escherichia coli with autodisplayed autoantigens. Analytica Chimica Acta, 2019, 1055, 106-114.	2.6	7
48	Electrochemical Detection of C-Reactive Protein in Human Serum Based on Self-Assembled Monolayer-Modified Interdigitated Wave-Shaped Electrode. Sensors, 2019, 19, 5560.	2.1	20
49	Fluorescence immunoassay of E. coli using anti-lipopolysaccharide antibodies isolated from human serum. Biosensors and Bioelectronics, 2019, 126, 518-528.	5.3	25
50	Characterization of <italic>in-situ</italic> Synthesized CdSxSe1â^'x Ternary Alloy Nanowire Photosensor. Journal of the Korean Ceramic Society, 2019, 56, 308-316.	1.1	7
51	Chronoamperometry-Based Redox Cycling for Application to Immunoassays. ACS Sensors, 2018, 3, 106-112.	4.0	26
52	Prolonged and highly efficient intracellular extraction of photosynthetic electrons from single algal cells by optimized nanoelectrode insertion. Nano Research, 2018, 11, 397-409.	5.8	17
53	Refolding of autodisplayed anti-NEF scFv through oxidation with glutathione for immunosensors. Biosensors and Bioelectronics, 2018, 102, 600-609.	5.3	7
54	Thermophoretic immunoassay based on autodisplayed Z-domains for the diagnosis of C-reactive protein. Sensors and Actuators B: Chemical, 2018, 258, 1131-1137.	4.0	6

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55	Orientation and density control of proteins on solid matters by outer membrane coating: Analytical and diagnostic applications. Journal of Pharmaceutical and Biomedical Analysis, 2018, 147, 174-184.	1.4	8
56	A Regenerative Immunoaffinity Layer Based on the Outer Membrane of Z-Domains Autodisplaying E. coli for Immunoassays and Immunosensors. Sensors, 2018, 18, 4030.	2.1	4
57	Electrical Characteristics and pH Response of a Parylene-H Sensing Membrane in a Si-Nanonet Ion-Sensitive Field-Effect Transistor. Sensors, 2018, 18, 3892.	2.1	11
58	Goldâ€Nanoparticleâ€Coated Magnetic Beads for Concentration and Ionization of Analytes for Laser Desorption/Ionization Mass Spectrometry. Rapid Communications in Mass Spectrometry, 2018, 33, 527-538.	0.7	8
59	TiO ₂ Nanowires from Wet-Corrosion Synthesis for Peptide Sequencing Using Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. ACS Applied Materials & Interfaces, 2018, 10, 33790-33802.	4.0	20
60	Scalable long-term extraction of photosynthetic electrons by simple sandwiching of nanoelectrode array with densely-packed algal cell film. Biosensors and Bioelectronics, 2018, 117, 15-22.	5.3	12
61	Capacitive biosensor based on vertically paired electrode with controlled parasitic capacitance. Sensors and Actuators B: Chemical, 2018, 273, 384-392.	4.0	14
62	Mass spectrometry based on nanomaterials. Ceramist, 2018, 21, 249-269.	0.0	2
63	In situ-synthesized cadmium sulfide nanowire photosensor with a parylene passivation layer for chemiluminescent immunoassays. Biosensors and Bioelectronics, 2017, 92, 221-228.	5.3	14
64	Autodisplay of the La/SSB protein on LPS-free E. coli for the diagnosis of Sjögren's syndrome. Enzyme and Microbial Technology, 2017, 100, 1-10.	1.6	9
65	Redox cycling-based immunoassay for detection of carcinogenic embryonic antigen. Analytica Chimica Acta, 2017, 971, 33-39.	2.6	15
66	Newborn screening by matrix-assisted laser desorption/ionization mass spectrometry based on parylene-matrix chip. Analytical Biochemistry, 2017, 530, 31-39.	1.1	11
67	Hypersensitive antibiotic susceptibility test based on a β-lactamase assay with a parylene-matrix chip. Enzyme and Microbial Technology, 2017, 97, 90-96.	1.6	8
68	A highly sensitive carbapenemase assay using laser desorption/ionization mass spectrometry based on a parylene-matrix chip. Enzyme and Microbial Technology, 2017, 104, 56-68.	1.6	6
69	Development of a wash-free immunoassay using Escherichia coli cells with autodisplayed Z-domains. Analyst, The, 2017, 142, 1720-1728.	1.7	16
70	Activity control of autodisplayed proteins on the same outer membrane layer of E. coli by using Z-domain/streptavidin/and lipase/foldase systems. Enzyme and Microbial Technology, 2017, 96, 85-95.	1.6	7
71	UV-irradiated parylene surfaces for proliferation and differentiation of PC-12 cells. Enzyme and Microbial Technology, 2017, 97, 1-10.	1.6	10
72	Gold nanoislands chip for laser desorption/ionization (LDI) mass spectrometry. Biochip Journal, 2017, 11, 246-254.	2.5	13

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73	Electrical Impedance Monitoring of C2C12 Myoblast Differentiation on an Indium Tin Oxide Electrode. Sensors, 2016, 16, 2068.	2.1	13
74	Insertion of Vertically Aligned Nanowires into Living Cells by Inkjet Printing of Cells. Small, 2016, 12, 1446-1457.	5.2	12
75	Surface modification of parylene-N films for the culture of osteoblast-like cells (MG-63). Applied Surface Science, 2016, 378, 277-285.	3.1	13
76	Band-type microelectrodes for amperometric immunoassays. Analytica Chimica Acta, 2016, 928, 39-48.	2.6	9
77	Impedimetric Tumor Necrosis Factor-α Sensor Based on a Reduced Graphene Oxide Nanoparticle-Modified Electrode Array. Journal of Nanoscience and Nanotechnology, 2016, 16, 11921-11927.	0.9	13
78	Patterned Nanowire Electrode Array for Direct Extraction of Photosynthetic Electrons from Multiple Living Algal Cells. Advanced Functional Materials, 2016, 26, 7679-7689.	7.8	23
79	A magnetite suspension-based washing method for immunoassays using Escherichia coli cells with autodisplayed Z-domains. Enzyme and Microbial Technology, 2016, 92, 1-8.	1.6	8
80	Chemiluminescent lateral-flow immunoassays by using in-situ synthesis of CdS NW photosensor. Analytica Chimica Acta, 2016, 927, 99-106.	2.6	19
81	Microbead-based immunoassay using the outer membrane layer of Escherichia coli combined with autodisplayed Z-domains. Applied Surface Science, 2016, 362, 146-153.	3.1	7
82	Analysis of benzylpenicillin in milk using MALDI-TOF mass spectrometry with top-down synthesized TiO2 nanowires as the solid matrix. Chemosphere, 2016, 143, 64-70.	4.2	31
83	Label-free and direct detection of C-reactive protein using reduced graphene oxide-nanoparticle hybrid impedimetric sensor. Bioelectrochemistry, 2016, 107, 37-44.	2.4	88
84	Co-autodisplay of Z-domains and bovine caseins on the outer membrane of E. coli. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 3126-3133.	1.4	11
85	Isolation and characterization of the outer membrane of Escherichia coli with autodisplayed Z-domains. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 842-847.	1.4	51
86	Surface modification of parylene-N with UV-treatment to enhance the protein immobilization. European Polymer Journal, 2015, 68, 36-46.	2.6	14
87	Electrochemical analysis of autodisplayed adrenodoxin (Adx) on the outer membrane of E. coli. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1509-1513.	1.4	8
88	Evaluation of a specific diagnostic marker for rheumatoid arthritis based on cyclic citrullinated peptide. Journal of Pharmaceutical and Biomedical Analysis, 2015, 115, 107-113.	1.4	10
89	Highly sensitive photosensor based on in situ synthesized CdS nanowires. Sensors and Actuators B: Chemical, 2015, 221, 884-890.	4.0	37
90	Highly sensitive bacterial susceptibility test against penicillin using parylene-matrix chip. Biosensors and Bioelectronics, 2015, 71, 306-312.	5.3	14

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91	Chemiluminescence lateral flow immunoassay based on Pt nanoparticle with peroxidase activity. Analytica Chimica Acta, 2015, 853, 360-367.	2.6	73
92	Development of a sensitive SPR biosensor for C-reactive protein (CRP) using plasma-treated parylene-N film. Sensors and Actuators B: Chemical, 2015, 207, 133-138.	4.0	31
93	Paryleneâ€matrix chip for small molecule analysis using matrixâ€assisted laser desorption/ionization timeâ€ofâ€flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2014, 28, 274-280.	0.7	17
94	Nylon nanoweb with TiO ₂ nanoparticles as a solid matrix for matrixâ€assisted laser desorption/ionization timeâ€ofâ€flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2014, 28, 2427-2436.	0.7	17
95	Matrixâ€assisted laser desorption/ionization timeâ€ofâ€flight mass spectrometry of small volatile molecules using a paryleneâ€matrix chip. Rapid Communications in Mass Spectrometry, 2014, 28, 2301-2306.	0.7	10
96	Ultrasonic isolation of the outer membrane of Escherichia coli with autodisplayed Z-domains. Enzyme and Microbial Technology, 2014, 66, 42-47.	1.6	15
97	Development of SPR biosensor for the detection of human hepatitis B virus using plasma-treated parylene-N film. Biosensors and Bioelectronics, 2014, 56, 286-294.	5.3	72
98	Microarray based on autodisplayed Ro proteins for medical diagnosis of systemic lupus erythematosus (SLE). Biosensors and Bioelectronics, 2014, 57, 213-218.	5.3	29
99	FACS-based immunoassay of troponin-I using E. coli cells with autodisplayed Z-domains. Analytical Methods, 2014, 6, 1700-1708.	1.3	12
100	A capacitive biosensor based on an interdigitated electrode with nanoislands. Analytica Chimica Acta, 2014, 844, 27-34.	2.6	49
101	Top-down synthesized TiO2 nanowires as a solid matrix for surface-assisted laser desorption/ionization time-of-flight (SALDI-TOF) mass spectrometry. Analytica Chimica Acta, 2014, 836, 53-60.	2.6	32
102	Optimization of a FACS based-immunoassay using E. coli autodisplaying Z-domains. Biochip Journal, 2013, 7, 173-179.	2.5	6
103	Magnetic-bead-based immunoassay using E. coli cells with autodisplayed Z-domains. Enzyme and Microbial Technology, 2013, 53, 118-122.	1.6	13
104	Flow cytometric immunoassay using E. coli with autodisplayed Z-domains. Enzyme and Microbial Technology, 2013, 53, 181-188.	1.6	20
105	Covalent protein immobilization with a paryleneâ€H film for matrixâ€assisted laser desorption/ionization timeâ€ofâ€flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2013, 27, 1149-1154.	0.7	16
106	Capacitive immunoaffinity biosensor based on vertically paired ring-electrodes. Biosensors and Bioelectronics, 2013, 40, 227-232.	5.3	25
107	Electrochemical ELISA based on Escherichia coli with autodisplayed Z-domains. Sensors and Actuators B: Chemical, 2012, 175, 46-52.	4.0	27
108	SPR biosensor based on immobilized E.coli cells with autodisplayed Z-domains. Biochip Journal, 2012, 6, 221-228.	2.5	23

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109	Non-labeled immunoassay based on zeta-potential analysis. Biochip Journal, 2012, 6, 319-324.	2.5	7
110	Immobilization of E. coli with autodisplayed Z-domains to a surface-modified microplate for immunoassay. Analytica Chimica Acta, 2011, 707, 142-147.	2.6	34
111	One step immobilization of peptides and proteins by using modified parylene with formyl groups. Biosensors and Bioelectronics, 2011, 30, 56-60.	5.3	30
112	SPR biosensor by using E. coli outer membrane layer with autodisplayed Z-domains. Sensors and Actuators B: Chemical, 2011, 154, 82-88.	4.0	33
113	Immunostick assay for medical diagnosis of rheumatoid arthritis. Biotechnology and Bioprocess Engineering, 2011, 16, 1248-1253.	1.4	4
114	Fluorescence immunoassay of anti-cyclic citrulinated peptide (CCP) autoantibodies by using parylene-H film. Biochip Journal, 2011, 5, 242-245.	2.5	22
115	Autodisplay of streptavidin. Enzyme and Microbial Technology, 2011, 48, 307-311.	1.6	29
116	Application of a functionalized parylene film as a linker layer of SPR biosensor. Sensors and Actuators B: Chemical, 2011, 154, 89-95.	4.0	43
117	E. coli outer membrane with autodisplayed Z-domain as a molecular recognition layer of SPR biosensor. Biosensors and Bioelectronics, 2010, 25, 1225-1228.	5.3	52
118	Highly sensitive rapid test with chemiluminescent signal bands. Biochip Journal, 2010, 4, 155-160.	2.5	15
119	Parylene-A coated microplate for covalent immobilization of proteins and peptides. Journal of Immunological Methods, 2010, 353, 44-48.	0.6	33
120	Hypersensitive immunoassay by using Escherichia coli outer membrane with autodisplayed Z-domains. Enzyme and Microbial Technology, 2010, 46, 309-314.	1.6	37
121	Autodisplay of 60-kDa Ro/SS-A antigen and development of a surface display enzyme-linked immunosorbent assay for systemic lupus erythematosus patient sera screening. Analytical Biochemistry, 2010, 407, 72-78.	1.1	27
122	Highly sensitive immunoassay based on E. coli with autodisplayed Z-domain. Analytica Chimica Acta, 2010, 667, 113-118.	2.6	33
123	Escherichia coli with autodisplayed Z-domain of protein A for signal amplification of SPR biosensor. Biosensors and Bioelectronics, 2009, 24, 1324-1329.	5.3	57
124	Diamond-like carbon (DLC) microelectrode for electrochemical ELISA. Biosensors and Bioelectronics, 2009, 24, 1394-1398.	5.3	40
125	Nanowire-assisted laser desorption and ionization mass spectrometry for quantitative analysis of small molecules. Rapid Communications in Mass Spectrometry, 2005, 19, 3166-3170.	0.7	104