Hugh Fan

List of Publications by Year
in descending order

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149 papers	9,802 citations	71102 41 h-index	37204 96 g-index
174 all docs	174 docs citations	174 times ranked	9906 citing authors

#	Article	IF	Citations
1	SARS-CoV-2 in residential rooms of two self-isolating persons with COVID-19. Journal of Aerosol Science, 2022, 159, 105870.	3.8	34
2	Environmental Surveillance for SARS-CoV-2 in Two Restaurants from a Mid-scale City that Followed U.S. CDC Reopening Guidance. Aerosol and Air Quality Research, 2022, 22, 210304.	2.1	3
3	Comparison of sample preparation methods for rare cell isolation in microfluidic devices. Canadian Journal of Chemistry, 2022, 100, 512-519.	1.1	1
4	Longitudinal Study of Circulating Biomarkers in Patients with Resectable Pancreatic Ductal Adenocarcinoma. Biosensors, 2022, 12, 206.	4.7	6
5	Viable SARS-CoV-2 Delta variant detected in aerosols in a residential setting with a self-isolating college student with COVID-19. Journal of Aerosol Science, 2022, 165, 106038.	3.8	23
6	A phase II, open-label pilot study evaluating the safety and activity of liposomal irinotecan (Nal-IRI) in combination with 5-FU and oxaliplatin (NALIRIFOX) in preoperative treatment of pancreatic adenocarcinoma (NEO-Nal-IRI Study).. Journal of Clinical Oncology, 2021, 39, TPS446-TPS446.	1.6	1
7	Fabrication and non-destructive characterization of through-plastic-via (TPV) in flexible hybrid electronics. Flexible and Printed Electronics, 2021, 6, 025001.	2.7	1
8	Integration of sample preparation with RNA-Amplification in a hand-held device for airborne virus detection. Analytica Chimica Acta, 2021, 1165, 338542.	5.4	16
9	Phase II Study of 5-Fluorouracil, Oxaliplatin plus Dasatinib (FOLFOX-D) in First-Line Metastatic Pancreatic Adenocarcinoma. Oncologist, 2021, 26, 825-e1674.	3.7	11
10	Using a combination of gangliosides and cell surface vimentin as surface biomarkers for isolating osteosarcoma cells in microfluidic devices. Journal of Bone Oncology, 2021, 28, 100357.	2.4	10
11	Exosome isolation using nanostructures and microfluidic devices. Biomedical Materials (Bristol), 2021, 16, 022005.	3.3	26
12	Environmental Surveillance and Transmission Risk Assessments for SARS-CoV-2 in a Fitness Center. Aerosol and Air Quality Research, 2021, 21, 210106.	2.1	11
13	A Valve-Enabled Sample Preparation Device with Isothermal Amplification for Multiplexed Virus Detection at the Point-of-Care. ACS Sensors, 2021, 6, 4176-4184.	7.8	9
14	Characterization of Bending, Crease, Aging, and Immersion Effects on Flexible Screen-Printed Silver Traces. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 444-456.	2.5	3
15	Phosphor powdersâ€incorporated polylactic acid polymeric composite used as 3D printing filaments with green luminescence properties. Journal of Applied Polymer Science, 2020, 137, 48644.	2.6	14
16	Engineering magnetic nanoparticles and their integration with microfluidics for cell isolation. Journal of Colloid and Interface Science, 2020, 564, 204-215.	9.4	26
17	Effect of a Backing Material on the Bendability of Flexible Substrates with Passive SMD components. , 2020, , .		0
18	Screen-printable and stretchable hard magnetic ink formulated from barium hexaferrite nanoparticles. Journal of Materials Chemistry C, 2020, 8, 12133-12139.	5.5	1

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19	Incorporation of lateral microfiltration with immunoaffinity for enhancing the capture efficiency of rare cells. Scientific Reports, 2020, 10, 14210.	3.3	16
20	Screen-Printed Inductive Silver Ink Strain Sensor on Stretchable TPU Substrate. , 2020, , .		2
21	Viable SARS-CoV-2 in the air of a hospital room with COVID-19 patients. International Journal of Infectious Diseases, 2020, 100, 476-482.	3.3	531
22	Microfluidic Paper-Based Analytical Device for Histidine Determination. Applied Biochemistry and Biotechnology, 2020, 192, 812-821.	2.9	9
23	Microfluidics-based device for the measurement of blood viscosity and its modeling based on shear rate, temperature, and heparin concentration. Biomedical Microdevices, 2019, 21, 80.	2.8	22
24	Flexible screen-printed coils for wireless power transfer using low-frequency magnetic fields. Journal of Micromechanics and Microengineering, 2019, 29, 084006.	2.6	15
25	InnenrÃ¼cktitelbild: Integration of Lateral Filter Arrays with Immunoaffinity for Circulatingâ€Tumorâ€Cell Isolation (Angew. Chem. 23/2019). Angewandte Chemie, 2019, 131, 7961-7961.	2.0	0
26	Integration of Lateral Filter Arrays with Immunoaffinity for Circulatingâ€Tumorâ€Cell Isolation. Angewandte Chemie, 2019, 131, 7688-7692.	2.0	7
27	Determination of the distribution of infectious viruses in aerosol particles using water-based condensational growth technology and a bacteriophage MS2 model. Aerosol Science and Technology, 2019, 53, 583-593.	3.1	26
28	Microfluidic Isolation of Circulating Tumor Cells and Cancer Stem-Like Cells from Patients with Pancreatic Ductal Adenocarcinoma. Theranostics, 2019, 9, 1417-1425.	10.0	58
29	Integration of Lateral Filter Arrays with Immunoaffinity for Circulatingâ€Tumorâ€Cell Isolation. Angewandte Chemie - International Edition, 2019, 58, 7606-7610.	13.8	56
30	Effect of Mechanical Cycling on the Magnetic Properties of Permalloy Films Electroplated on Stretchable Substrates. , 2019, , .		2
31	Estimation of through-Plastic Via (TPV) Filling through Computed Tomography for Dielectrics and Conductive Inks in Flexible Printed Electronics. ECS Meeting Abstracts, 2019, , .	0.0	0
32	A phase II, open-label pilot study evaluating the safety and activity of nal-IRI in combination with 5-FU and oxaliplatin in preoperative treatment of pancreatic adenocarcinoma (NEO-Nal-IRI study).. Journal of Clinical Oncology, 2019, 37, TPS476-TPS476.	1.6	0
33	Abstract 2216: Circulating tumor cell isolation based on both physical & biological properties. , 2019, , .		0
34	An efficient virus aerosol sampler enabled by adiabatic expansion. Journal of Aerosol Science, 2018, 117, 74-84.	3.8	13
35	Capillary Force Driven Single-Cell Spiking Apparatus for Studying Circulating Tumor Cells. , 2018, , .		0
36	Airbrushed Dipole RF Strain Sensor Antenna on a Stretchable Polyurethane Substrate. , 2018, , .		7

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37	Reliability of Passive Printed Dipole Antennas Under Extreme Environments. , 2018, , .		5
38	Valveâ€Enabled Sample Preparation and RNA Amplification in a Coffee Mug for Zika Virus Detection. Angewandte Chemie, 2018, 130, 17457-17460.	2.0	3
39	Airbrushing and surface modification for fabricating flexible electronics on polydimethylsiloxane. Journal of Micromechanics and Microengineering, 2018, 28, 125014.	2.6	14
40	Valveâ€Enabled Sample Preparation and RNA Amplification in a Coffee Mug for Zika Virus Detection. Angewandte Chemie - International Edition, 2018, 57, 17211-17214.	13.8	37
41	Stability and Mobility of Magnetic Nanoparticles in Biological Environments Determined from Dynamic Magnetic Susceptibility Measurements. Bioconjugate Chemistry, 2018, 29, 2793-2805.	3.6	12
42	Collection of airborne bacteria and yeast through water-based condensational growth. Aerobiologia, 2018, 34, 337-348.	1.7	6
43	(Invited) Using Airbrushes to Pattern Reagents and Electrical Components on Flexible Substrates. ECS Meeting Abstracts, 2018, , .	0.0	0
44	Circulating tumor cells as a surrogate for treatment response in patients with metastatic pancreatic adenocarcinoma.. Journal of Clinical Oncology, 2018, 36, 318-318.	1.6	0
45	Characteristics of circulating tumor cells in newly diagnosed metastatic pancreatic adenocarcinoma.. Journal of Clinical Oncology, 2018, 36, 304-304.	1.6	1
46	Learn from industry to build a healthy lab. Nature, 2018, 559, 331-331.	27.8	0
47	Tumor cell isolation in microfluidic devices for cancer treatment monitoring. , 2017, , .		2
48	Thermal Decomposition Synthesis of Iron Oxide Nanoparticles with Diminished Magnetic Dead Layer by Controlled Addition of Oxygen. ACS Nano, 2017, 11, 2284-2303.	14.6	286
49	Sessile droplets for chemical and biological assays. Lab on A Chip, 2017, 17, 2150-2166.	6.0	108
50	Cogenerating Synthetic Parts toward a Self-Replicating System. ACS Synthetic Biology, 2017, 6, 1327-1336.	3.8	40
51	Electrochemical sensing of nicotine using screen-printed carbon electrodes modified with nitrogen-doped graphene sheets. Journal of Electroanalytical Chemistry, 2017, 784, 77-84.	3.8	58
52	Tumor cell capture patterns around aptamer-immobilized microposts in microfluidic devices. Biomicrofluidics, 2017, 11, 054110.	2.4	19
53	Collection of Viable Aerosolized Influenza Virus and Other Respiratory Viruses in a Student Health Care Center through Water-Based Condensation Growth. MSphere, 2017, 2, .	2.9	33
54	A Novel Microfluidic Device for Isolation of Circulating Tumor Cells from Pancreatic Cancer Blood Samples. Methods in Molecular Biology, 2017, 1634, 33-53.	0.9	8

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55	Using airbrushes to pattern reagents for microarrays and paper-fluidic devices. Microsystems and Nanoengineering, 2017, 3, 17055.	7.0	7
56	Interactions Between Circulating Tumor Cells and Aptamer-Functionalized Microposts in a Flow. , 2017, , .		0
57	Drifted Influenza A and B Viruses Collected by a Water-Based Condensation Growth Air Sampler in a Student Health Care Center during an Influenza Outbreak. Genome Announcements, 2017, 5, .	0.8	1
58	Evaporation-Driven Bioassays in Suspended Droplets. Analytical Chemistry, 2016, 88, 7312-7317.	6.5	57
59	Chemical Analysis. , 2016, , 1-5.		0
60	Fabrication and Operation of Paper-Based Analytical Devices. Annual Review of Analytical Chemistry, 2016, 9, 203-222.	5.4	74
61	Circulating Tumor Cell Isolation and Analysis. Advances in Clinical Chemistry, 2016, 75, 1-31.	3.7	59
62	Multi-sample immunoassay inside optical fiber capillary enabled by evanescent wave detection. Sensing and Bio-Sensing Research, 2016, 7, 7-11.	4.2	5
63	Highly efficient collection of infectious pandemic influenza H1N1 virus (2009) through laminar-flow water based condensation. Aerosol Science and Technology, 2016, 50, i-iv.	3.1	60
64	Use of RNA amplification and electrophoresis for studying virus aerosol collection efficiency and their comparison with plaque assays. Electrophoresis, 2016, 37, 2574-2580.	2.4	5
65	Efficient collection of viable virus aerosol through laminarâ€flow, waterâ€based condensational particle growth. Journal of Applied Microbiology, 2016, 120, 805-815.	3.1	55
66	A universal tumor cell isolation method enabled by fibrin-coated microchannels. Analyst, The, 2016, 141, 563-566.	3.5	4
67	Optimization of a miniaturized fluid array device for cellâ€free protein synthesis. Biotechnology and Bioengineering, 2015, 112, 2459-2467.	3.3	13
68	Detection of ricin in beverages using cell-free protein synthesis in a microfluidic device. Sensors and Actuators B: Chemical, 2015, 221, 723-729.	7.8	6
69	Low-power electrically controlled thermoelastic microvalves integrated in thermoplastic microfluidic devices. Microfluidics and Nanofluidics, 2015, 19, 1385-1394.	2.2	9
70	Enhanced Nanoparticle Size Control by Extending LaMerâ€™s Mechanism. Chemistry of Materials, 2015, 27, 6059-6066.	6.7	195
71	Mixing in microfluidic devices and enhancement methods. Journal of Micromechanics and Microengineering, 2015, 25, 094001.	2.6	290
72	Use of vacuum bagging for fabricating thermoplastic microfluidic devices. Lab on A Chip, 2015, 15, 62-66.	6.0	21

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73	Abstract IA21: Enumeration of circulating tumor cells for studying cancer drug sensitivity. , 2015, , .		0
74	Abstract 1607: Identification of low number circulating tumor cells (CTCs) for cancer treatment monitoring. , 2015, , .		2
75	â€œTissue is the Issueâ€: Circulating Tumor Cells in Pancreatic Cancer. Journal of Gastrointestinal Cancer, 2014, 45, 222-225.	1.3	7
76	Cell-Free Protein Synthesis in Miniaturized Array Devices and Effects of Device Orientation. Journal of the Association for Laboratory Automation, 2014, 19, 366-374.	2.8	5
77	Thermal lens microscopy as a detector in microdevices. Electrophoresis, 2014, 35, 2279-2291.	2.4	26
78	Capture, release and culture of circulating tumor cells from pancreatic cancer patients using an enhanced mixing chip. Lab on A Chip, 2014, 14, 89-98.	6.0	228
79	Cell-Free Protein Synthesis in Microfluidic 96-Well Plates. Methods in Molecular Biology, 2014, 1118, 157-168.	0.9	9
80	The use of polyurethane as an elastomer in thermoplastic microfluidic devices and the study of its creep properties. Electrophoresis, 2014, 35, 289-297.	2.4	23
81	Lab on a chip and circulating tumor cells. Lab on A Chip, 2014, 14, 12-13.	6.0	11
82	An ensemble of aptamers and antibodies for multivalent capture of cancer cells. Chemical Communications, 2014, 50, 6722.	4.1	30
83	Protein synthesis yield increased 72 times in the cell-free PURE system. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock	1.3	23
84	Development of All-Plastic Microvalve Array for Multiplexed Immunoassay. , 2014, , .		0
85	Cotinine Concentration in Serum Correlates with Tobacco Smoke-Induced Emphysema in Mice. Scientific Reports, 2014, 4, 3864.	3.3	16
86	Polyhydroxy fullerenes. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	18
87	Multivalent DNA Nanospheres for Enhanced Capture of Cancer Cells in Microfluidic Devices. ACS Nano, 2013, 7, 7067-7076.	14.6	207
88	Laminated paper-based analytical devices (LPAD): fabrication, characterization, and assays. Microfluidics and Nanofluidics, 2013, 15, 173-181.	2.2	104
89	Laminated Paper-Based Analytical Devices (LPAD) with Origami-Enabled Chemiluminescence Immunoassay for Cotinine Detection in Mouse Serum. Analytical Chemistry, 2013, 85, 10270-10276.	6.5	126
90	Synthesis, stability, cellular uptake, and blood circulation time of carboxymethyl-inulin coated magnetic nanoparticles. Journal of Materials Chemistry B, 2013, 1, 2807.	5.8	38

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91	DNA nanospheres with microfluidics: a promising platform for cancer diagnosis?. Nanomedicine, 2013, 8, 1731-1733.	3.3	7
92	Rapid Capture of Rare Cancer Cells Using a High-Performance Microfluidic Chip. , 2013, , .		0
93	Microscale 2D separation systems for proteomic analysis. Expert Review of Proteomics, 2012, 9, 135-147.	3.0	16
94	Microfluidic Valve Arrays in Thermoplastic Devices. , 2012, , .		1
95	Concentration and determination of cotinine in serum by cationâ€selective exhaustive injection and sweeping micellar electrokinetic chromatography. Electrophoresis, 2012, 33, 2570-2576.	2.4	16
96	Aptamer-Enabled Efficient Isolation of Cancer Cells from Whole Blood Using a Microfluidic Device. Analytical Chemistry, 2012, 84, 4199-4206.	6.5	214
97	Characterization of bonding between poly(dimethylsiloxane) and cyclic olefin copolymer using corona discharge induced grafting polymerization. Journal of Colloid and Interface Science, 2012, 365, 289-295.	9.4	16
98	Development of a fluorescent method for detecting the onset of coagulation in human plasma on microstructured lateral flow platforms. Analyst, The, 2011, 136, 1816.	3.5	14
99	Chemical-Assisted Bonding of Thermoplastics/Elastomer for Fabricating Microfluidic Valves. Analytical Chemistry, 2011, 83, 446-452.	6.5	56
100	Stable, biocompatible lipid vesicle generation by solvent extraction-based droplet microfluidics. Biomicrofluidics, 2011, 5, 44113-4411312.	2.4	127
101	Fabrication optimization of a miniaturized array device for cellâ€free protein synthesis. Electrophoresis, 2011, 32, 3101-3107.	2.4	8
102	Thermoplastic microfluidic devices and their applications in protein and DNA analysis. Analyst, The, 2011, 136, 1288.	3.5	60
103	Thermally Actuated Plastic Microfluidic Valves. , 2010, , .		0
104	Miniaturized fluid array for highâ€throughput protein expression. Biotechnology Progress, 2010, 26, 1590-1596.	2.6	14
105	Cell-Free Expression of Soluble and Membrane Proteins in an Array Device for Drug Screening. Analytical Chemistry, 2010, 82, 7021-7026.	6.5	28
106	Protein synthesis in a device with nanoporous membranes and microchannels. Lab on A Chip, 2010, 10, 2541.	6.0	6
107	A Microfluidic Sensor Array for Ricin Detection. ACS Symposium Series, 2009, , 195-204.	0.5	0
108	Twoâ€dimensional protein separation in microfluidic devices. Electrophoresis, 2009, 30, 758-765.	2.4	46

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109	Electroosmotically driven creeping flows in a wavy microchannel. Microfluidics and Nanofluidics, 2009, 6, 37-52.	2.2	31
110	Colloidal dispersions of monodisperse magnetite nanoparticles modified with poly(ethylene glycol). Journal of Colloid and Interface Science, 2009, 329, 107-113.	9.4	121
111	Enrichment of Cancer Cells Using Aptamers Immobilized on a Microfluidic Channel. Analytical Chemistry, 2009, 81, 1033-1039.	6.5	207
112	Aptamer-Based Microfluidic Device for Enrichment, Sorting, and Detection of Multiple Cancer Cells. Analytical Chemistry, 2009, 81, 7436-7442.	6.5	245
113	Microfluidic protein synthesis array for toxin detection. , 2009, , .		1
114	Manufacturable plastic microfluidic valves using thermal actuation. Lab on A Chip, 2009, 9, 3082.	6.0	38
115	Cell-free protein expression in a microchannel array with passive pumping. Lab on A Chip, 2009, 9, 56-61.	6.0	41
116	Microfluidic Devices with Photodefinable Pseudo-valves for Protein Separation. Methods in Molecular Biology, 2009, 544, 43-52.	0.9	0
117	Dynamic coating for protein separation in cyclic olefin copolymer microfluidic devices. Microfluidics and Nanofluidics, 2008, 5, 327-335.	2.2	54
118	Investigation of Airbrushing for Fabricating Microelectrodes in Microfluidic Devices. Electroanalysis, 2008, 20, 663-670.	2.9	16
119	Fabrication of Microfluidic Reactors and Mixing Studies for Luciferase Detection. Analytical Chemistry, 2008, 80, 6045-6050.	6.5	28
120	Microfluidic Devices for Rapid Protein Separation. , 2008, , .		0
121	Integration of isoelectric focusing with multi-channel gel electrophoresis by using microfluidic pseudo-valves. Lab on A Chip, 2007, 7, 1806.	6.0	56
122	Deconvolution Microscopy for Flow Visualization in Microchannels. Analytical Chemistry, 2007, 79, 2576-2582.	6.5	9
123	Device fabrication and integration with photodefinable microvalves for protein separation. Sensors and Actuators A: Physical, 2007, 134, 271-277.	4.1	32
124	Cellâ€Free Protein Synthesis in Microfluidic Array Devices. Biotechnology Progress, 2007, 23, 1305-1311.	2.6	45
125	Integrated Plastic Microfluidic Devices for Bacterial Detection. , 2007, , 78-89.		0
126	Effects of Fabrication Process Parameters on the Properties of Cyclic Olefin Copolymer Microfluidic Devices. Journal of Microelectromechanical Systems, 2006, 15, 1060-1068.	2.5	47

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127	Ricin Detection by Biological Signal Amplification in a Well-in-a-Well Device. Analytical Chemistry, 2006, 78, 7659-7664.	6.5	32
128	Plastic Microfluidic Devices for DNA and Protein Analyses. , 2006, , 311-328.		4
129	On the possibility of applying noncovalent dyes for protein labeling in isoelectric focusing. Analytical Biochemistry, 2006, 350, 263-267.	2.4	3
130	Effects of separation length and voltage on isoelectric focusing in a plastic microfluidic device. Electrophoresis, 2006, 27, 3619-3626.	2.4	46
131	Fabricating a Plastic Microfluidic Device for Protein Synthesis. , 2006, , .		0
132	Conductivity properties of carrier ampholyte pH gradients in isoelectric focusing. Electrophoresis, 2005, 26, 473-479.	2.4	23
133	A Laserâ€Induced Fluorescence Imaging System for Isoelectric Focusing*. Instrumentation Science and Technology, 2005, 33, 379-389.	1.8	18
134	Toxin Detection by a Miniaturized in Vitro Protein Expression Array. Analytical Chemistry, 2005, 77, 5494-5500.	6.5	20
135	Hydrogen Sensing by Enzyme-Catalyzed Electrochemical Detection. Analytical Chemistry, 2005, 77, 4969-4975.	6.5	26
136	Fabricating Plastic Microfluidic Devices With Photodefinable Microvalves for Protein Separations. , 2005, , .		0
137	Macro-to-micro interfaces for microfluidic devices. Lab on A Chip, 2004, 4, 526.	6.0	208
138	Integrating Polymerase Chain Reaction, Valving, and Electrophoresis in a Plastic Device for Bacterial Detection. Analytical Chemistry, 2003, 75, 4591-4598.	6.5	179
139	Application of disposable plastic microfluidic device arrays with customized chemistries to multiplexed biochemical assays. Biochemical Society Transactions, 2002, 30, 73-78.	3.4	20
140	Peer Reviewed: Plastic Advances Microfluidic Devices. Analytical Chemistry, 2002, 74, 78 A-86 A.	6.5	135
141	Miniaturized capillary isoelectric focusing in plastic microfluidic devices. Electrophoresis, 2002, 23, 3638-3645.	2.4	83
142	Effects of injector geometry and sample matrix on injection and sample loading in integrated capillary electrophoresis devices. Electrophoresis, 1999, 20, 529-538.	2.4	117
143	Dynamic DNA Hybridization on a Chip Using Paramagnetic Beads. Analytical Chemistry, 1999, 71, 4851-4859.	6.5	233
144	Monitoring the refolding pathway for a large multimeric protein using capillary zone electrophoresis. Journal of Chromatography A, 1997, 769, 315-323.	3.7	19

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145	Micromachining of capillary electrophoresis injectors and separators on glass chips and evaluation of flow at capillary intersections. Analytical Chemistry, 1994, 66, 177-184.	6.5	363
146	Electroosmotic Pumping and Valveless Control of Fluid Flow within a Manifold of Capillaries on a Glass Chip. Analytical Chemistry, 1994, 66, 3485-3491.	6.5	210
147	Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip. Science, 1993, 261, 895-897.	12.6	1,749
148	Capillary electrophoresis and sample injection systems integrated on a planar glass chip. Analytical Chemistry, 1992, 64, 1926-1932.	6.5	1,191
149	Permeability of glucose and other neutral species through recast perfluorosulfonated ionomer films. Analytical Chemistry, 1992, 64, 1304-1311.	6.5	112