

# Li-Hsien Yeh

## List of Publications by Citations

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90  
papers

2,465  
citations

31  
h-index

45  
g-index

90  
ext. papers

2,843  
ext. citations

6.6  
avg. IF

5.58  
L-index

#	Paper	IF	Citations
90	Rectification of Concentration Polarization in Mesopores Leads To High Conductance Ionic Diodes and High Performance Osmotic Power. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 3691-3698	16.4	112
89	Ion transport in a pH-regulated nanopore. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 7527-34	7.8	104
88	Ion Concentration Polarization in Polyelectrolyte-Modified Nanopores. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 8672-8677	3.8	97
87	Field Effect Control of Surface Charge Property and Electroosmotic Flow in Nanofluidics. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 4209-4216	3.8	86
86	pH-regulated ionic conductance in a nanochannel with overlapped electric double layers. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 4508-14	7.8	80
85	Evaluation of the electric force in electrophoresis. <i>Journal of Colloid and Interface Science</i> , <b>2007</b> , 305, 324-9	9.3	74
84	Regulating DNA translocation through functionalized soft nanopores. <i>Nanoscale</i> , <b>2012</b> , 4, 2685-93	7.7	68
83	Tuning ion transport and selectivity by a salt gradient in a charged nanopore. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 2681-6	7.8	67
82	Voltage-Induced Modulation of Ionic Concentrations and Ion Current Rectification in Mesopores with Highly Charged Pore Walls. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 393-398	6.4	62
81	Effects of double-layer polarization and counterion condensation on the electrophoresis of polyelectrolytes. <i>Soft Matter</i> , <b>2011</b> , 7, 396-411	3.6	62
80	Electrokinetic ion and fluid transport in nanopores functionalized by polyelectrolyte brushes. <i>Nanoscale</i> , <b>2012</b> , 4, 5169-77	7.7	61
79	Ion transport and selectivity in biomimetic nanopores with pH-tunable zwitterionic polyelectrolyte brushes. <i>Nanoscale</i> , <b>2015</b> , 7, 17020-9	7.7	57
78	Field Effect Modulation of Surface Charge Property and Electroosmotic Flow in a Nanochannel: Stern Layer Effect. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 9322-9331	3.8	54
77	Highly selective and high-performance osmotic power generators in subnanochannel membranes enabled by metal-organic frameworks. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	54
76	Regulating Current Rectification and Nanoparticle Transport Through a Salt Gradient in Bipolar Nanopores. <i>Small</i> , <b>2015</b> , 11, 4594-602	11	51
75	Buffer anions can enormously enhance the electrokinetic energy conversion in nanofluidics with highly overlapped double layers. <i>Nano Energy</i> , <b>2017</b> , 32, 374-381	17.1	49
74	Salt gradient driven ion transport in solid-state nanopores: the crucial role of reservoir geometry and size. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 30160-30165	3.6	44

73	Unraveling the Anomalous Surface-Charge-Dependent Osmotic Power Using a Single Funnel-Shaped Nanochannel. <i>ACS Nano</i> , <b>2019</b> , 13, 13374-13381	16.7	43
72	Highly Charged Particles Cause a Larger Current Blockage in Micropores Compared to Neutral Particles. <i>ACS Nano</i> , <b>2016</b> , 10, 8413-22	16.7	42
71	DNA Electrokinetic Translocation through a Nanopore: Local Permittivity Environment Effect. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 4793-4801	3.8	42
70	Controlling pH-regulated bionanoparticles translocation through nanopores with polyelectrolyte brushes. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 9615-22	7.8	40
69	Programmable ionic conductance in a pH-regulated gated nanochannel. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 20138-46	3.6	38
68	Anomalous pH-Dependent Nanofluidic Salinity Gradient Power. <i>Small</i> , <b>2017</b> , 13, 1702691	11	36
67	Importance of Ionic Polarization Effect on the Electrophoretic Behavior of Polyelectrolyte Nanoparticles in Aqueous Electrolyte Solutions. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 367-373	3.8	36
66	Rectification of ionic current in nanopores functionalized with bipolar polyelectrolyte brushes. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 258, 1223-1229	8.5	35
65	Tunable Streaming Current in a pH-Regulated Nanochannel by a Field Effect Transistor. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 6090-6099	3.8	34
64	Electrokinetics of pH-regulated zwitterionic polyelectrolyte nanoparticles. <i>Nanoscale</i> , <b>2012</b> , 4, 7575-84	7.7	34
63	Tunable Donnan Potential and Electrokinetic Flow in a Biomimetic Gated Nanochannel with pH-Regulated Polyelectrolyte Brushes. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 19806-19813	3.8	32
62	Counterion condensation in pH-regulated polyelectrolytes. <i>Electrochemistry Communications</i> , <b>2012</b> , 19, 97-100	5.1	32
61	Field effect regulation of Donnan potential and electrokinetic flow in a functionalized soft nanochannel. <i>Soft Matter</i> , <b>2013</b> , 9, 9767	3.6	32
60	Importance of temperature effect on the electrophoretic behavior of charge-regulated particles. <i>Langmuir</i> , <b>2012</b> , 28, 1013-9	4	31
59	Gated ion transport in a soft nanochannel with biomimetic polyelectrolyte brush layers. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 229, 305-314	8.5	29
58	pH-regulated ionic conductance in a nanopore. <i>Electrochemistry Communications</i> , <b>2014</b> , 43, 91-94	5.1	27
57	4.2 V wearable asymmetric supercapacitor devices based on a VOx//MnOx paper electrode and an eco-friendly deep eutectic solvent-based gel electrolyte. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 20686-20694	13	27
56	Gate manipulation of ionic conductance in a nanochannel with overlapped electric double layers. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 215, 266-271	8.5	25

55	A nanofluidic osmotic power generator demonstrated in polymer gel electrolytes with substantially enhanced performance. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 26791-26796	13	25
54	Slowing down DNA translocation through a nanopore by lowering fluid temperature. <i>Electrophoresis</i> , <b>2012</b> , 33, 3458-65	3.6	24
53	Gate modulation of proton transport in a nanopore. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 7449-58	5.8	23
52	Electrophoresis of a charge-regulated soft sphere in a charged cylindrical pore. <i>Journal of Physical Chemistry B</i> , <b>2010</b> , 114, 1621-31	3.4	23
51	Electroviscous effect on the streaming current in a pH-regulated nanochannel. <i>Electrochemistry Communications</i> , <b>2014</b> , 48, 77-80	5.1	22
50	Influence of boundary on the effect of double-layer polarization and the electrophoretic behavior of soft biocolloids. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2011</b> , 88, 559-67	6	22
49	Electrophoresis of a Membrane-Coated Cylindrical Particle Positioned Eccentrically along the Axis of a Narrow Cylindrical Pore. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 16576-16587	3.8	21
48	Influence of the shape of a polyelectrolyte on its electrophoretic behavior. <i>Soft Matter</i> , <b>2012</b> , 8, 9469	3.6	19
47	pH-Regulated nanopore conductance with overlapped electric double layers. <i>Electrochemistry Communications</i> , <b>2015</b> , 55, 60-63	5.1	18
46	Electroformation and electrofusion of giant vesicles in a microfluidic device. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2013</b> , 110, 81-7	6	18
45	Diffusiophoresis of a charge-regulated spherical particle normal to two parallel disks. <i>Journal of Physical Chemistry B</i> , <b>2010</b> , 114, 2766-78	3.4	18
44	Electrophoresis of a spherical particle along the axis of a cylindrical pore filled with a Carreau fluid. <i>Colloid and Polymer Science</i> , <b>2006</b> , 284, 886-892	2.4	18
43	Electrophoresis of pH-regulated nanoparticles: impact of the Stern layer. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 9927-34	3.6	16
42	Buffer effect on the ionic conductance in a pH-regulated nanochannel. <i>Electrochemistry Communications</i> , <b>2015</b> , 51, 129-132	5.1	16
41	Diffusiophoresis of a polyelectrolyte in a salt concentration gradient. <i>Electrophoresis</i> , <b>2012</b> , 33, 1068-78	3.6	16
40	Electrophoresis of a finite rod along the axis of a long cylindrical microchannel filled with Carreau fluids. <i>Microfluidics and Nanofluidics</i> , <b>2009</b> , 7, 383-392	2.8	16
39	Unraveling the anomalous channel-length-dependent blue energy conversion using engineered alumina nanochannels. <i>Nano Energy</i> , <b>2021</b> , 84, 105930	17.1	16
38	3D Network VO Electrodes in a Gel Electrolyte for High-Voltage Wearable Symmetric Pseudocapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 29838-29848	9.5	15

37	Electrophoresis of a charge-regulated sphere in a narrow cylindrical pore filled with multiple ionic species. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 3972-80	3.4	15
36	Effect of charged boundary on electrophoresis: Sphere in spherical cavity at arbitrary potential and double-layer thickness. <i>Journal of Colloid and Interface Science</i> , <b>2007</b> , 314, 256-63	9.3	15
35	Effects of 1-hexadecyl-3-methylimidazolium ionic liquids on the physicochemical characteristics and cytotoxicity of phosphatidylcholine vesicles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2013</b> , 436, 1083-1091	5.1	14
34	Diffusiophoresis of a soft sphere normal to two parallel disks. <i>Langmuir</i> , <b>2010</b> , 26, 16037-47	4	14
33	Effect of a charged boundary on electrophoresis in a Carreau fluid: a sphere at an arbitrary position in a spherical cavity. <i>Langmuir</i> , <b>2007</b> , 23, 8637-46	4	14
32	Electrodifusioosmosis-Induced Negative Differential Resistance in pH-Regulated Mesopores Containing Purely Monovalent Solutions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 3198-3204	9.5	14
31	Electrophoresis of a soft sphere in a necked cylindrical nanopore. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 11758-65	3.6	13
30	Deformability-Based Electrokinetic Particle Separation. <i>Micromachines</i> , <b>2016</b> , 7,	3.3	13
29	Ingestible polysaccharide battery coupled with a self-charging nanogenerator for controllable disinfection system. <i>Nano Energy</i> , <b>2021</b> , 79, 105440	17.1	13
28	Proton enhancement in an extended nanochannel. <i>Langmuir</i> , <b>2014</b> , 30, 13116-20	4	12
27	Electrophoresis of two identical rigid spheres in a charged cylindrical pore. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 2579-86	3.4	12
26	Electrophoresis of a rigid sphere in a Carreau fluid normal to a large charged disk. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 12351-61	3.4	12
25	Characterization and in vitro biocompatibility of catanionic assemblies formed with oppositely charged dicetyl amphiphiles. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2015</b> , 126, 10-7	6	11
24	Single Mesopores with High Surface Charges as Ultrahigh Performance Osmotic Power Generators. <i>Small</i> , <b>2020</b> , 16, e2006013	11	11
23	Electrophoresis of deformable polyelectrolytes in a nanofluidic channel. <i>Langmuir</i> , <b>2013</b> , 29, 2446-54	4	11
22	Effect of a charged boundary on electrophoresis: a sphere at an arbitrary position in a spherical cavity. <i>Journal of Colloid and Interface Science</i> , <b>2007</b> , 310, 281-91	9.3	11
21	Analytical model for surface-charge-governed nanochannel conductance. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 247, 697-705	8.5	10
20	Effects of lipid composition on physicochemical characteristics and cytotoxicity of vesicles composed of cationic and anionic dialkyl lipids. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 1545-53	3.6	10

19	Importance of boundary on the electrophoresis of a soft cylindrical particle. <i>Journal of Physical Chemistry B</i> , <b>2012</b> , 116, 12626-32	3.4	10
18	Thermal Dependence of the Mesoscale Ionic Diode: Modeling and Experimental Verification. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 17139-17146	9.5	9
17	Electrophoresis of a particle at an arbitrary surface potential and double layer thickness: importance of nonuniformly charged conditions. <i>Langmuir</i> , <b>2012</b> , 28, 2997-3004	4	9
16	Utilization of Calophyllum inophyllum shell and kernel oil cake for reducing sugar production. <i>Bioresource Technology</i> , <b>2016</b> , 212, 338-341	11	9
15	Novel patterned sapphire substrates for enhancing the efficiency of GaN-based light-emitting diodes.. <i>RSC Advances</i> , <b>2020</b> , 10, 16284-16290	3.7	8
14	Analytical model for surface charge property of pH-regulated nanorods. <i>Electrochemistry Communications</i> , <b>2014</b> , 45, 75-78	5.1	7
13	Importance of electroosmotic flow and multiple ionic species on the electrophoresis of a rigid sphere in a charge-regulated zwitterionic cylindrical pore. <i>Langmuir</i> , <b>2012</b> , 28, 10942-7	4	7
12	Improved Rectification and Osmotic Power in Polyelectrolyte-Filled Mesopores. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	6
11	Simple synthesis, self-assembly, and cytotoxicity of novel dimeric cholesterol derivatives. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 116, 153-9	6	6
10	Low-Voltage Pulsed Electric Field Sterilization on a Microfluidic Chip. <i>Electroanalysis</i> , <b>2013</b> , 25, 1301-1309		6
9	Electrophoresis of a charge-regulated soft sphere: importance of effective membrane charge. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2013</b> , 102, 864-70	6	5
8	Boundary effect on electrophoresis in a Carreau fluid: simulated biocolloids at an arbitrary position in a charged spherical cavity. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2009</b> , 69, 8-14	6	5
7	Space charge enhanced ion transport in heterogeneous polyelectrolyte/alumina nanochannel membranes for high-performance osmotic energy conversion. <i>Journal of Materials Chemistry A</i> , <b>2022</b> , 10, 2867-2875	13	3
6	Electrophoretic Behavior of pH-Regulated Soft Biocolloids <b>2016</b> , 946-960		2
5	Nanofluidic Power: Anomalous pH-Dependent Nanofluidic Salinity Gradient Power (Small 48/2017). <i>Small</i> , <b>2017</b> , 13, 1770253	11	2
4	Realization of robust mesoscale ionic diodes for ultrahigh osmotic energy generation at mild neutral pH. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 20502-20509	13	2
3	Current Progress and Scalable Approach toward the Synthesis of 2D Metal-Organic Frameworks. <i>Advanced Materials Interfaces</i> , 2102560	4.6	1
2	Electrophoresis of Soft Particles in a Confined Space <b>2012</b> , 61-94		

- 1 Translation of two coaxial, nonhomogeneously structured flocs normal to a plate. *Colloid and Polymer Science*, **2008**, 286, 1593-1604 2.4