

Hsueh-Chia Chang

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275
papers

10,316
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h-index

86
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301
ext. papers

11,199
ext. citations

4.8
avg, IF

6.43
L-index

#	Paper	IF	Citations
275	Microfluidic devices for bioapplications. <i>Small</i> , 2011 , 7, 12-48	11	362
274	Wave Evolution on a Falling Film. <i>Annual Review of Fluid Mechanics</i> , 1994 , 26, 103-136	22	321
273	An integrated dielectrophoretic chip for continuous bioparticle filtering, focusing, sorting, trapping, and detecting. <i>Biomicrofluidics</i> , 2007 , 1, 21503	3.2	207
272	Selection of nonequilibrium overlimiting currents: universal depletion layer formation dynamics and vortex instability. <i>Physical Review Letters</i> , 2008 , 101, 254501	7.4	179
271	Marangoni effects of trace impurities on the motion of long gas bubbles in capillaries. <i>Journal of Fluid Mechanics</i> , 1990 , 210, 303-328	3.7	175
270	Nanoscale Electrokinetics and Microvortices: How Microhydrodynamics Affects Nanofluidic Ion Flux. <i>Annual Review of Fluid Mechanics</i> , 2012 , 44, 401-426	22	157
269	Transport of gas bubbles in capillaries. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989 , 1, 1642-1655		156
268	A critical comparison of equilibrium, non-equilibrium and boundary-driven molecular dynamics techniques for studying transport in microporous materials. <i>Journal of Chemical Physics</i> , 2001 , 115, 8112-8124	3.9	153
267	Nonlinear evolution of waves on a vertically falling film. <i>Journal of Fluid Mechanics</i> , 1993 , 250, 433-480	3.7	143
266	Electrochemically assembled quasi-periodic quantum dot arrays. <i>Nanotechnology</i> , 1996 , 7, 360-371	3.4	130
265	On-chip surface acoustic wave lysis and ion-exchange nanomembrane detection of exosomal RNA for pancreatic cancer study and diagnosis. <i>Lab on A Chip</i> , 2015 , 15, 1656-66	7.2	123
264	Coupling between precipitation and contact-line dynamics: multiring stains and stick-slip motion. <i>Physical Review Letters</i> , 2008 , 100, 044503	7.4	118
263	Electrokinetic micropump and micromixer design based on ac faradaic polarization. <i>Journal of Applied Physics</i> , 2004 , 96, 1730-1733	2.5	118
262	Nonlinear electrokinetic ejection and entrainment due to polarization at nearly insulated wedges. <i>Physics of Fluids</i> , 2002 , 14, 4315-4328	4.4	118
261	Long-Range AC Electroosmotic Trapping and Detection of Bioparticles. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 2815-2822	3.9	116
260	Nonlinear Smoluchowski slip velocity and micro-vortex generation. <i>Journal of Fluid Mechanics</i> , 2002 , 461, 229-238	3.7	110
259	Drop formation during coating of vertical fibres. <i>Journal of Fluid Mechanics</i> , 1994 , 261, 135-168	3.7	109

258	Paper-based microfluidic surface acoustic wave sample delivery and ionization source for rapid and sensitive ambient mass spectrometry. <i>Analytical Chemistry</i> , 2011 , 83, 3260-6	7.8	107
257	Surface acoustic wave devices for chemical sensing and microfluidics: A review and perspective. <i>Analytical Methods</i> , 2017 , 9, 4112-4134	3.2	102
256	A new electro-osmotic pump based on silica monoliths. <i>Sensors and Actuators B: Chemical</i> , 2006 , 113, 500-509	8.5	102
255	A continuous high-throughput bioparticle sorter based on 3D traveling-wave dielectrophoresis. <i>Lab on A Chip</i> , 2009 , 9, 3193-201	7.2	101
254	Manipulation and characterization of red blood cells with alternating current fields in microdevices. <i>Electrophoresis</i> , 2003 , 24, 3703-17	3.6	101
253	Molecular Simulations of Knudsen Wall-slip: Effect of Wall Morphology. <i>Molecular Simulation</i> , 2003 , 29, 697-709	2	98
252	Nonlinear current-voltage characteristics of nanochannels. <i>Physical Review E</i> , 2009 , 79, 046305	2.4	97
251	Heat transfer enhancement in coiled tubes by chaotic mixing. <i>International Journal of Heat and Mass Transfer</i> , 1992 , 35, 2475-2489	4.9	97
250	Electrokinetic displacement of air bubbles in microchannels. <i>Physics of Fluids</i> , 2002 , 14, 1-14	4.4	96
249	Particle detection by electrical impedance spectroscopy with asymmetric-polarization AC electroosmotic trapping. <i>Microfluidics and Nanofluidics</i> , 2005 , 1, 161-167	2.8	96
248	Iterated stretching of viscoelastic jets. <i>Physics of Fluids</i> , 1999 , 11, 1717-1737	4.4	92
247	Pattern formation during electropolishing. <i>Physical Review B</i> , 1997 , 56, 12608-12624	3.3	91
246	A new ac electro spray mechanism by Maxwell-Wagner polarization and capillary resonance. <i>Physical Review Letters</i> , 2004 , 92, 133902	7.4	88
245	Aligning fast alternating current electroosmotic flow fields and characteristic frequencies with dielectrophoretic traps to achieve rapid bacteria detection. <i>Electrophoresis</i> , 2005 , 26, 3725-37	3.6	83
244	Microfluidic systems with ion-selective membranes. <i>Annual Review of Analytical Chemistry</i> , 2014 , 7, 317-35.5	3.5	81
243	Long waves on inclined films at high Reynolds number. <i>Journal of Fluid Mechanics</i> , 1991 , 222, 665	3.7	81
242	Heat transfer enhancement in three-dimensional corrugated channel flow. <i>International Journal of Heat and Mass Transfer</i> , 1998 , 41, 3559-3573	4.9	80
241	AC electro spray biomaterials synthesis. <i>Biomaterials</i> , 2005 , 26, 6122-8	15.6	80

240	Nanoscale pore formation dynamics during aluminum anodization. <i>Chaos</i> , 2002 , 12, 240-251	3.3	80
239	Induced dipoles and dielectrophoresis of nanocolloids in electrolytes. <i>Physical Review E</i> , 2007 , 75, 060501.4		79
238	Complex Stain Morphologies. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 6256-6269	3.9	76
237	Understanding electrokinetics at the nanoscale: A perspective. <i>Biomicrofluidics</i> , 2009 , 3, 12001	3.2	73
236	Bacteria capture, concentration and detection by alternating current dielectrophoresis and self-assembly of dispersed single-wall carbon nanotubes. <i>Electrophoresis</i> , 2006 , 27, 1376-85	3.6	73
235	Knudsen diffusivity of a hard sphere in a rough slit pore. <i>Physical Review Letters</i> , 2003 , 91, 026102	7.4	73
234	Analysis of heat transfer enhancement in coiled-tube heat exchangers. <i>International Journal of Heat and Mass Transfer</i> , 2001 , 44, 3189-3199	4.9	71
233	Shear and AC Field Enhanced Carbon Nanotube Impedance Assay for Rapid, Sensitive, and Mismatch-Discriminating DNA Hybridization. <i>ACS Nano</i> , 2009 , 3, 1823-30	16.7	70
232	Traveling waves on fluid interfaces: Normal form analysis of the Kuramoto-Bivashinsky equation. <i>Physics of Fluids</i> , 1986 , 29, 3142		70
231	Laminarizing effects of dispersion in an active-dissipative nonlinear medium. <i>Physica D: Nonlinear Phenomena</i> , 1993 , 63, 299-320	3.3	69
230	Electrokinetic transport of red blood cells in microcapillaries. <i>Electrophoresis</i> , 2002 , 23, 2165-73	3.6	68
229	Interaction dynamics of solitary waves on a falling film. <i>Journal of Fluid Mechanics</i> , 1995 , 294, 123-154	3.7	65
228	Nonlinear waves on liquid film surfacesII. Bifurcation analyses of the long-wave equation. <i>Chemical Engineering Science</i> , 1986 , 41, 2477-2486	4.4	65
227	A spectral theory for small-amplitude miscible fingering. <i>Physics of Fluids</i> , 2002 , 14, 999-1010	4.4	62
226	Effect of the Surface Energy Barrier on Sorbate Diffusion in AlPO4-5. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 2725-2735	3.4	62
225	A rapid field-use assay for mismatch number and location of hybridized DNAs. <i>Lab on A Chip</i> , 2010 , 10, 828-31	7.2	60
224	Microscale pH regulation by splitting water. <i>Biomicrofluidics</i> , 2011 , 5, 46502-465028	3.2	60
223	Mechanism for drop formation on a coated vertical fibre. <i>Journal of Fluid Mechanics</i> , 1999 , 380, 233-255	3.7	60

222	Nonlinear electrokinetics and "superfast" electrophoresis. <i>Journal of Colloid and Interface Science</i> , 2004 , 276, 483-97	9.3	58
221	Effective diffusion and conduction in two-phase media: A unified approach. <i>AIChE Journal</i> , 1983 , 29, 846-853	3.6	58
220	Bifurcation characteristics of nonlinear systems under conventional pid control. <i>Chemical Engineering Science</i> , 1984 , 39, 1127-1142	4.4	57
219	Eliminating the limiting-current phenomenon by geometric field focusing into nanopores and nanoslots. <i>Physical Review E</i> , 2010 , 81, 046301	2.4	55
218	Rectification, gating voltage, and interchannel communication of nanoslot arrays due to asymmetric entrance space charge polarization. <i>Physical Review Letters</i> , 2009 , 103, 154502	7.4	55
217	Assembly of Multi-Stranded Nanofiber Threads through AC Electrospinning. <i>Advanced Materials</i> , 2009 , 21, 349-354	24	55
216	Dielectrophoretic microfluidic device for the continuous sorting of Escherichia coli from blood cells. <i>Biomicrofluidics</i> , 2011 , 5, 32005-3200515	3.2	55
215	MULTI-SCALE ANALYSIS OF EFFECTIVE TRANSPORT IN PERIODIC HETEROGENEOUS MEDIA. <i>Chemical Engineering Communications</i> , 1982 , 15, 83-91	2.2	55
214	Energy Conversion Efficiency of Nanofluidic Batteries: Hydrodynamic Slip and Access Resistance. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 8050-8061	3.8	53
213	Accelerated disturbance damping of an unknown distributed system by nonlinear feedback. <i>AIChE Journal</i> , 1992 , 38, 1461-1476	3.6	53
212	Dielectrophoretic discrimination of bovine red blood cell starvation age by buffer selection and membrane cross-linking. <i>Biomicrofluidics</i> , 2007 , 1, 44102	3.2	52
211	Ion current rectification inversion in conic nanopores: nonequilibrium ion transport biased by ion selectivity and spatial asymmetry. <i>Journal of Chemical Physics</i> , 2013 , 138, 044706	3.9	51
210	Rapid bioparticle concentration and detection by combining a discharge driven vortex with surface enhanced Raman scattering. <i>Biomicrofluidics</i> , 2007 , 1, 14106	3.2	50
209	Microfluidic Mixing by dc and ac Nonlinear Electrokinetic Vortex Flows. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 2902-2911	3.9	50
208	Nonlinear waves on liquid film surfaces□ Flooding in a vertical tube. <i>Chemical Engineering Science</i> , 1986 , 41, 2463-2476	4.4	50
207	Flow in periodically constricted tubes: Transition to inertial and nonsteady flows. <i>Chemical Engineering Science</i> , 1986 , 41, 2487-2505	4.4	50
206	Exact criteria for uniqueness and multiplicity of an nth order chemical reaction via a catastrophe theory approach. <i>Chemical Engineering Science</i> , 1979 , 34, 285-299	4.4	50
205	Mixed mosaic membranes prepared by layer-by-layer assembly for ionic separations. <i>ACS Nano</i> , 2014 , 8, 12338-45	16.7	49

204	STATIC AND SPONTANEOUS ELECTROWETTING. <i>Modern Physics Letters B</i> , 2005 , 19, 549-569	1.6	49
203	An electro-osmotic micro-pump based on monolithic silica for micro-flow analyses and electro-sprays. <i>Analytical and Bioanalytical Chemistry</i> , 2005 , 382, 817-24	4.4	49
202	Front dynamics and fingering of a driven contact line. <i>Journal of Fluid Mechanics</i> , 1998 , 373, 81-110	3.7	49
201	A spectral theory for fingering on a prewetted plane. <i>Physics of Fluids</i> , 1999 , 11, 2494-2515	4.4	49
200	Controlling spatiotemporal patterns on a catalytic wafer. <i>Physical Review Letters</i> , 1994 , 72, 1459-1462	7.4	49
199	CdSe nanowires with illumination-enhanced conductivity: Induced dipoles, dielectrophoretic assembly, and field-sensitive emission. <i>Journal of Applied Physics</i> , 2007 , 101, 073704	2.5	48
198	Extracellular vesicle microRNA quantification from plasma using an integrated microfluidic device. <i>Communications Biology</i> , 2019 , 2, 189	6.7	47
197	Charge inversion, water splitting, and vortex suppression due to DNA sorption on ion-selective membranes and their ion-current signatures. <i>Langmuir</i> , 2013 , 29, 8275-83	4	47
196	Dielectrophoretic detection and quantification of hybridized DNA molecules on nano-genetic particles. <i>Electrophoresis</i> , 2008 , 29, 4808-12	3.6	47
195	An ion-exchange nanomembrane sensor for detection of nucleic acids using a surface charge inversion phenomenon. <i>Biosensors and Bioelectronics</i> , 2014 , 60, 92-100	11.8	46
194	ac field enhanced protein crystallization. <i>Applied Physics Letters</i> , 2008 , 92, 223902	3.4	46
193	Wave-enhanced interfacial transfer. <i>Chemical Engineering Science</i> , 2000 , 55, 1127-1141	4.4	46
192	Efficient viscosity estimation from molecular dynamics simulation via momentum impulse relaxation. <i>Journal of Chemical Physics</i> , 2000 , 113, 2079-2087	3.9	46
191	Simultaneous isolation and preconcentration of exosomes by ion concentration polarization. <i>Electrophoresis</i> , 2018 , 39, 2029	3.6	45
190	Evaporative self-assembly from complex DNA-colloid suspensions. <i>Langmuir</i> , 2008 , 24, 3911-7	4	45
189	Bovine red blood cell starvation age discrimination through a glutaraldehyde-amplified dielectrophoretic approach with buffer selection and membrane cross-linking. <i>Electrophoresis</i> , 2008 , 29, 2272-9	3.6	45
188	Electrokinetic mixing vortices due to electrolyte depletion at microchannel junctions. <i>Journal of Colloid and Interface Science</i> , 2003 , 263, 133-43	9.3	45
187	Simulation of noise-driven wave dynamics on a falling film. <i>AIChE Journal</i> , 1996 , 42, 1553-1568	3.6	45

186	Electrohydrodynamic surface microvortices for mixing and particle trapping. <i>Applied Physics Letters</i> , 2006 , 88, 233512	3.4	44
185	Diffusion of inert gases in silica sodalite: Importance of lattice flexibility. <i>Journal of Chemical Physics</i> , 2001 , 115, 9519-9527	3.9	43
184	Electrowetting films on parallel line electrodes. <i>Physical Review E</i> , 2006 , 73, 011605	2.4	42
183	Pattern selection during electropolishing due to double-layer effects. <i>Chaos</i> , 1999 , 9, 62-77	3.3	42
182	Switchable pH actuators and 3D integrated salt bridges as new strategies for reconfigurable microfluidic free-flow electrophoretic separation. <i>Lab on A Chip</i> , 2014 , 14, 979-87	7.2	39
181	Does lattice vibration drive diffusion in zeolites?. <i>Journal of Chemical Physics</i> , 2001 , 114, 3776-3789	3.9	39
180	Rapid on-chip genetic detection microfluidic platform for real world applications. <i>Biomicrofluidics</i> , 2009 , 3, 22407	3.2	38
179	Stability of a Solitary Pulse against Wave Packet Disturbances in an Active Medium. <i>Physical Review Letters</i> , 1995 , 75, 1747-1750	7.4	38
178	Heat-transfer enhancement due to slender recirculation and chaotic transport between counter-rotating eccentric cylinders. <i>Journal of Fluid Mechanics</i> , 1992 , 238, 119-154	3.7	38
177	Onset of nonlinear waves on falling films. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989 , 1, 1314-1327		38
176	High-flux ionic diodes, ionic transistors and ionic amplifiers based on external ion concentration polarization by an ion exchange membrane: a new scalable ionic circuit platform. <i>Lab on A Chip</i> , 2016 , 16, 1171-7	7.2	37
175	Hyperbolic Homogenized Models for Thermal and Solutal Dispersion. <i>SIAM Journal on Applied Mathematics</i> , 2003 , 63, 1231-1258	1.8	37
174	Capillary penetration failure of blood suspensions. <i>Journal of Colloid and Interface Science</i> , 2005 , 287, 647-56	9.3	36
173	Evolution of nonlinear waves on vertically falling films—normal form analysis. <i>Chemical Engineering Science</i> , 1987 , 42, 515-533	4.4	36
172	Future microfluidic and nanofluidic modular platforms for nucleic acid liquid biopsy in precision medicine. <i>Biomicrofluidics</i> , 2016 , 10, 032902	3.2	36
171	Multi-scale analysis of exotic dynamics in surface catalyzed reactions— <i>Chemical Engineering Science</i> , 1984 , 39, 37-50	4.4	35
170	An extension of the biharmonic boundary integral method to free surface flow in channels. <i>Journal of Computational Physics</i> , 1988 , 77, 340-360	4.1	34
169	Computer-assisted molecular structure construction for coal-derived compounds. <i>Fuel</i> , 1977 , 56, 3-8	7.1	34

168	A micro-scale multi-frequency reactance measurement technique to detect bacterial growth at low bio-particle concentrations. <i>Lab on A Chip</i> , 2006 , 6, 682-92	7.2	33
167	Dynamics of Liquid Spreading on Solid Surfaces. <i>Industrial & Engineering Chemistry Research</i> , 1996 , 35, 2860-2874	3.9	33
166	Universal cone angle of ac electrosprays due to net charge entrainment. <i>Physical Review Letters</i> , 2008 , 101, 204501	7.4	32
165	Drop Formation on a Coated Vertical Fiber. <i>Studies in Interface Science</i> , 2002 , 363-383		32
164	Controlling nanoslot overlimiting current with the depth of a connecting microchamber. <i>Europhysics Letters</i> , 2010 , 90, 64004	1.6	31
163	High-frequency AC electropray ionization source for mass spectrometry of biomolecules. <i>Journal of the American Society for Mass Spectrometry</i> , 2010 , 21, 1852-6	3.5	31
162	Dynamics of delayed systems under feedback control. <i>Chemical Engineering Science</i> , 1989 , 44, 1281-1294	4.4	31
161	Integrated AC electrokinetic cell separation in a closed-loop device. <i>Lab on A Chip</i> , 2010 , 10, 718-26	7.2	30
160	Designing a sensitive and quantifiable nanocolloid assay with dielectrophoretic crossover frequencies. <i>Biomicrofluidics</i> , 2010 , 4, 13205	3.2	29
159	Optimized DNA hybridization detection on nanocolloidal particles by dielectrophoresis. <i>Electrophoresis</i> , 2010 , 31, 666-71	3.6	28
158	Capture and release of viruses using amino-functionalized silica particles. <i>Analytica Chimica Acta</i> , 2006 , 569, 76-82	6.6	28
157	A theory for fast-igniting catalytic converters. <i>AIChE Journal</i> , 1995 , 41, 1898-1914	3.6	28
156	Generation and Suppression of Radiation by Solitary Pulses. <i>SIAM Journal on Applied Mathematics</i> , 1998 , 58, 1246-1277	1.8	27
155	Noise-driven wave transitions on a vertically falling film. <i>Journal of Fluid Mechanics</i> , 2002 , 462, 255-283	3.7	27
154	Local stability theory of solitary pulses in an active medium. <i>Physica D: Nonlinear Phenomena</i> , 1996 , 97, 353-375	3.3	27
153	On nonlinear doubly-diffusive marangoni instability. <i>AIChE Journal</i> , 1988 , 34, 705-722	3.6	27
152	Molecular detection of invasive species in heterogeneous mixtures using a microfluidic carbon nanotube platform. <i>PLoS ONE</i> , 2011 , 6, e17280	3.7	27
151	Open-tubular capillary electrochromatography-mass spectrometry with sheathless nanoflow electropray ionization for analysis of amino acids and peptides. <i>Journal of Mass Spectrometry</i> , 2007 , 42, 244-53	2.2	26

150	A theoretical examination of closed-loop properties and tuning methods of single-loop PI controllers. <i>Chemical Engineering Science</i> , 1987 , 42, 2395-2415	4.4	26
149	Current Technologies and Recent Developments for Screening of HPV-Associated Cervical and Oropharyngeal Cancers. <i>Cancers</i> , 2016 , 8,	6.6	26
148	Coherent structures, self-similarity, and universal roll wave coarsening dynamics. <i>Physics of Fluids</i> , 2000 , 12, 2268-2278	4.4	25
147	Subharmonic instabilities of finite-amplitude monochromatic waves. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992 , 4, 505-523		25
146	PEFLOQ: An algorithm for the bifurcational analysis of periodic solutions of autonomous systems. <i>Computers and Chemical Engineering</i> , 1984 , 8, 355-365	4	25
145	Solid-state nanopore hydrodynamics and transport. <i>Biomicrofluidics</i> , 2019 , 13, 011301	3.2	24
144	Dynamic particle trapping, release, and sorting by microvortices on a substrate. <i>Physical Review E</i> , 2010 , 82, 026308	2.4	24
143	Electrospray cone-jet breakup and droplet production for electrolyte solutions. <i>Europhysics Letters</i> , 2012 , 99, 64003	1.6	24
142	A generalized sideband stability theory via center manifold projection. <i>Physics of Fluids A, Fluid Dynamics</i> , 1990 , 2, 1364-1379		24
141	Integrated, DC voltage-driven nucleic acid diagnostic platform for real sample analysis: Detection of oral cancer. <i>Talanta</i> , 2015 , 145, 35-42	6.2	23
140	Frequency dependence of alternating current electrospray ionization mass spectrometry. <i>Analytical Chemistry</i> , 2011 , 83, 3017-23	7.8	23
139	Electrothermal ac electro-osmosis. <i>Applied Physics Letters</i> , 2009 , 94, 024101	3.4	23
138	Nanobead electrokinetics: The enabling microfluidic platform for rapid multi-target pathogen detection. <i>AIChE Journal</i> , 2007 , 53, 2486-2492	3.6	23
137	Coarsening dynamics of falling-film solitary waves. <i>Physical Review E</i> , 1996 , 54, 1467-1477	2.4	23
136	Secondary and tertiary excitation of three-dimensional patterns on a falling film. <i>Journal of Fluid Mechanics</i> , 1994 , 270, 251-276	3.7	23
135	Glutaraldehyde enhanced dielectrophoretic yeast cell separation. <i>Biomicrofluidics</i> , 2009 , 3, 44108	3.2	22
134	AC electro-osmotic mixing induced by non-contact external electrodes. <i>Biosensors and Bioelectronics</i> , 2006 , 22, 563-7	11.8	22
133	Turbulent and inertial roll waves in inclined film flow. <i>Physics of Fluids</i> , 1987 , 30, 1259		22

132	A Quasi-steady-state analysis of the dynamics of two-species heterogeneous catalytic reactions. <i>Chemical Engineering Science</i> , 1981 , 36, 1611-1622	4.4	22
131	Unfolding collapsed polyelectrolytes in alternating-current electric fields. <i>Soft Matter</i> , 2011 , 7, 1207-1213	3.6	21
130	An integrated micropump and electrospray emitter system based on porous silica monoliths. <i>Electrophoresis</i> , 2006 , 27, 3964-70	3.6	21
129	Solitary Wave Formation and Dynamics on Falling Films. <i>Advances in Applied Mechanics</i> , 1996 , 1-58	10	21
128	A nanomembrane-based nucleic acid sensing platform for portable diagnostics. <i>Topics in Current Chemistry</i> , 2011 , 304, 153-69		20
127	Hysteretic Conformational Transition of Single Flexible Polyelectrolyte under Resonant AC Electric Polarization. <i>Macromolecules</i> , 2010 , 43, 7402-7405	5.5	20
126	Design of a Porous Electroosmotic Pump Used in Power Electronic Cooling. <i>IEEE Transactions on Industry Applications</i> , 2009 , 45, 2073-2079	4.3	20
125	Alternating Current Electro spraying. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 9358-9368	3.9	20
124	Role of erythrocyte deformability during capillary wetting. <i>Biotechnology and Bioengineering</i> , 2006 , 93, 201-11	4.9	20
123	Spanwise pairing of finite-amplitude longitudinal vortex rolls in inclined free-convection boundary layers. <i>Journal of Fluid Mechanics</i> , 1991 , 231, 73-111	3.7	20
122	Growth of a gas bubble in a viscous fluid. <i>Physics of Fluids</i> , 1986 , 29, 3530		20
121	Design criterion for radial flow fixed-bed reactors. <i>AIChE Journal</i> , 1983 , 29, 1039-1041	3.6	20
120	GLOBAL STABILIZATION OF A BIOLOGICAL REACTOR BY LINEAR FEEDBACK CONTROL. <i>Chemical Engineering Communications</i> , 1984 , 27, 231-254	2.2	20
119	A shear-enhanced CNT-assembly nanosensor platform for ultra-sensitive and selective protein detection. <i>Biosensors and Bioelectronics</i> , 2017 , 97, 143-149	11.8	19
118	Induced nanoparticle aggregation for short nucleic acid quantification by depletion isotachopheresis. <i>Biosensors and Bioelectronics</i> , 2016 , 86, 840-848	11.8	19
117	Dynamic double layer effects on ac-induced dipoles of dielectric nanocolloids. <i>Biomicrofluidics</i> , 2010 , 4,	3.2	19
116	Drop fall-off from pendent rivulets. <i>Journal of Fluid Mechanics</i> , 1997 , 338, 173-201	3.7	19
115	Dynamic superconcentration at critical-point double-layer gates of conducting nanoporous granules due to asymmetric tangential fluxes. <i>Biomicrofluidics</i> , 2008 , 2, 14102	3.2	19

114	Polyhedra formation and transient cone ejection of a resonant microdrop forced by an ac electric field. <i>Physical Review Letters</i> , 2006 , 96, 254502	7.4	19
113	Anomalous conical menisci under an ac field-departure from the dc Taylor cone. <i>Applied Physics Letters</i> , 2006 , 89, 234103	3.4	19
112	Finite-amplitude waves at the interface between fluids with different viscosity: Theory and experiments. <i>Physical Review Letters</i> , 1995 , 75, 77-80	7.4	19
111	Ion current rectification in funnel-shaped nanochannels: Hysteresis and inversion effects. <i>Journal of Chemical Physics</i> , 2015 , 143, 224706	3.9	18
110	Changing nanoslot ion flux with a dynamic nanocolloid ion-selective filter: secondary overlimiting currents due to nanocolloid-nanoslot interaction. <i>Physical Review E</i> , 2010 , 81, 066317	2.4	18
109	Effects of bulk charge and momentum relaxation time scales on ac electro spraying. <i>Journal of Applied Physics</i> , 2007 , 102, 034902	2.5	18
108	Thermal entrance length and Nusselt numbers in coiled tubes. <i>International Journal of Heat and Mass Transfer</i> , 1994 , 37, 336-340	4.9	18
107	A non-optical multiplexed PCR diagnostic platform for serotype-specific detection of dengue virus. <i>Sensors and Actuators B: Chemical</i> , 2020 , 310, 127854	8.5	17
106	Multi-scale analysis of exotic dynamics in surface catalyzed reactionsII. <i>Chemical Engineering Science</i> , 1984 , 39, 51-64	4.4	17
105	Global effects of controller saturation on closed-loop dynamics. <i>Chemical Engineering Science</i> , 1985 , 40, 2191-2205	4.4	17
104	TRANSITION TO CHAOS FROM A TWO-TORUS IN A DELAYED FEEDBACK SYSTEM. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1991 , 01, 67-81	2	16
103	STABILITY OF AXISYMMETRIC WAVES ON LIQUID FILMS FLOWING DOWN A VERTICAL COLUMN TO AZIMUTHAL AND STREAMWISE DISTURBANCES. <i>Chemical Engineering Communications</i> , 1992 , 118, 327-340	2.2	16
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