Hsueh-Chia Chang

List of Publications by Year in Descending Order

275 papers	10,316 citations	56 h-index	86 g-index
301 ext. papers	11,199 ext. citations	4.8 avg, IF	6.43 L-index

#	Paper	IF	Citations
275	Development of a Multi-target Protein Biomarker Assay for Circulating Tumor Cells.. *Methods in Molecular Biology*, **2022**, 2394, 3-18	1.4	0
274	Nanoparticle-assisted detection of nucleic acids in a polymeric nanopore with a large pore size. *Biosensors and Bioelectronics*, **2022**, 196, 113697	11.8	2
273	A multiplexed immuno-sensor for on-line and automated monitoring of tissue culture protein biomarkers. *Talanta*, **2021**, 225, 122021	6.2	1
272	Elliptical Pipette Generated Large Microdroplets for POC Visual ddPCR Quantification of Low Viral Load. *Analytical Chemistry*, **2021**, 93, 6456-6462	7.8	10
271	Slowing down DNA translocation through solid-state nanopores by edge-field leakage. *Nature Communications*, **2021**, 12, 140	17.4	10
270	A multiplexed ion-exchange membrane-based miRNA (MIX□miR) detection platform for rapid diagnosis of myocardial infarction. *Lab on A Chip*, **2021**, 21, 3876-3887	7.2	2
269	Universal Features of Non-equilibrium Ionic Currents through Perm-Selective Membranes: Gating by Charged Nanoparticles/Macromolecules for Robust Biosensing Applications. *Journal of Physical Chemistry B*, **2021**, 125, 1906-1915	3.4	5
268	Conformal single cell hydrogel coating with electrically induced tip streaming of an AC cone. *Biomaterials Science*, **2021**, 9, 3284-3292	7.4	3
267	Chemically functionalized conical PET nanopore for protein detection at the single-molecule level. *Biosensors and Bioelectronics*, **2020**, 165, 112289	11.8	13
266	Biocompatible Direct Deposition of Functionalized Nanoparticles Using Shrinking Surface Plasmonic Bubble. *Advanced Materials Interfaces*, **2020**, 7, 2000597	4.6	7
265	Liquid biopsy technologies based on membrane microfluidics: High-yield purification and selective quantification of biomarkers in nanocarriers. *Electrophoresis*, **2020**, 41, 1878-1892	3.6	5
264	A non-optical multiplexed PCR diagnostic platform for serotype-specific detection of dengue virus. *Sensors and Actuators B: Chemical*, **2020**, 310, 127854	8.5	17
263	Constant-potential environment for activating and synchronizing cardiomyocyte colonies with on-chip ion-depleting perm-selective membranes. *Lab on A Chip*, **2020**, 20, 4273-4284	7.2	1
262	Resistive amplitude fingerprints during translocation of linear molecules through charged solid-state nanopores. *Journal of Chemical Physics*, **2020**, 153, 035102	3.9	4
261	Novel Homogeneous Anion Exchange Membranes for Reproducible and Sensitive Nucleic Acid Detection via Current-Voltage Characteristic Measurement. *ACS Applied Materials & Interfaces*, **2020**, 12, 54459-54472	9.5	1
260	Extracellular vesicle microRNA quantification from plasma using an integrated microfluidic device. *Communications Biology*, **2019**, 2, 189	6.7	47
259	Solid-state nanopore hydrodynamics and transport. *Biomicrofluidics*, **2019**, 13, 011301	3.2	24

258	Biphasic signals during nanopore translocation of DNA and nanoparticles due to strong ion cloud deformation. *Nanoscale*, **2019**, 11, 22772-22779	7.7	3
257	Far-field sensitivity of droplet generation: Exponential scaling and cutoff. *Physical Review Fluids*, **2019**, 4,	2.8	1
256	A bifurcated continuous field-flow fractionation (BCFFF) chip for high-yield and high-throughput nucleic acid extraction and purification. *Lab on A Chip*, **2019**, 19, 3853-3861	7.2	9
255	Simultaneous isolation and preconcentration of exosomes by ion concentration polarization. *Electrophoresis*, **2018**, 39, 2029	3.6	45
254	Immersed AC electrospray (iACE) for monodispersed aqueous droplet generation. *Biomicrofluidics*, **2018**, 12, 044113	3.2	7
253	Acceleration of DNA melting kinetics using alternating electric fields. *Journal of Chemical Physics*, **2018**, 149, 085102	3.9	4
252	Surface acoustic wave devices for chemical sensing and microfluidics: A review and perspective. *Analytical Methods*, **2017**, 9, 4112-4134	3.2	102
251	A shear-enhanced CNT-assembly nanosensor platform for ultra-sensitive and selective protein detection. *Biosensors and Bioelectronics*, **2017**, 97, 143-149	11.8	19
250	Kinetic theory for DNA melting with vibrational entropy. *Journal of Chemical Physics*, **2017**, 147, 135101	3.9	2
249	Selectivity enhancements in gel-based DNA-nanoparticle assays by membrane-induced isotachophoresis: thermodynamics versus kinetics. *Electrophoresis*, **2017**, 38, 2592-2602	3.6	9
248	Concentration-Gradient Stabilization with Segregated Counter- and Co-Ion Paths: A Quasistationary Depletion Front for Robust Molecular Isolation or Concentration. *Physical Review Applied*, **2017**, 7,	4.3	12
247	Robust ion current oscillations under a steady electric field: An ion channel analog. *Physical Review E*, **2016**, 94, 022613	2.4	2
246	Induced nanoparticle aggregation for short nucleic acid quantification by depletion isotachophoresis. *Biosensors and Bioelectronics*, **2016**, 86, 840-848	11.8	19
245	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. *Lab on A Chip*, **2016**, 16, 1171-7	7.2	37
244	Current Technologies and Recent Developments for Screening of HPV-Associated Cervical and Oropharyngeal Cancers. *Cancers*, **2016**, 8,	6.6	26
243	Future microfluidic and nanofluidic modular platforms for nucleic acid liquid biopsy in precision medicine. *Biomicrofluidics*, **2016**, 10, 032902	3.2	36
242	Universal Scaling of Robust Thermal Hot Spot and Ionic Current Enhancement by Focused Ohmic Heating in a Conic Nanopore. *Physical Review Letters*, **2016**, 117, 134301	7.4	1
241	Integrated, DC voltage-driven nucleic acid diagnostic platform for real sample analysis: Detection of oral cancer. *Talanta*, **2015**, 145, 35-42	6.2	23

240	Ion current rectification in funnel-shaped nanochannels: Hysteresis and inversion effects. *Journal of Chemical Physics*, **2015**, 143, 224706	3.9	18
239	Universal low-frequency asymptotes of dynamic conic nanopore rectification: An ionic nanofluidic inductor. *Journal of Chemical Physics*, **2015**, 143, 224705	3.9	9
238	Fluidic-Based Ion Memristors and Ionic Latches. *Small*, **2015**, 11, 5206-13	11	11
237	Mesoscale simulations of two model systems in biophysics: from red blood cells to DNAs. *Computational Particle Mechanics*, **2015**, 2, 339-357	3	3
236	On-chip surface acoustic wave lysis and ion-exchange nanomembrane detection of exosomal RNA for pancreatic cancer study and diagnosis. *Lab on A Chip*, **2015**, 15, 1656-66	7.2	123
235	Switchable pH actuators and 3D integrated salt bridges as new strategies for reconfigurable microfluidic free-flow electrophoretic separation. *Lab on A Chip*, **2014**, 14, 979-87	7.2	39
234	Microfluidic systems with ion-selective membranes. *Annual Review of Analytical Chemistry*, **2014**, 7, 317-35	12.5	81
233	An ion-exchange nanomembrane sensor for detection of nucleic acids using a surface charge inversion phenomenon. *Biosensors and Bioelectronics*, **2014**, 60, 92-100	11.8	46
232	Diffraction-limited ultrasensitive molecular nano-arrays with singular nano-cone scattering. *Biomicrofluidics*, **2014**, 8, 021101	3.2	7
231	Mixed mosaic membranes prepared by layer-by-layer assembly for ionic separations. *ACS Nano*, **2014**, 8, 12338-45	16.7	49
230	Celebrating singularities: Mathematics and chemical engineering. *AICHE Journal*, **2013**, 59, 1830-1843	3.6	3
229	Charge inversion, water splitting, and vortex suppression due to DNA sorption on ion-selective membranes and their ion-current signatures. *Langmuir*, **2013**, 29, 8275-83	4	47
228	Energy Conversion Efficiency of Nanofluidic Batteries: Hydrodynamic Slip and Access Resistance. *Journal of Physical Chemistry C*, **2013**, 117, 8050-8061	3.8	53
227	Broadband converging plasmon resonance at a conical nanotip. *Optics Express*, **2013**, 21, 6609-17	3.3	10
226	Ion current rectification inversion in conic nanopores: nonequilibrium ion transport biased by ion selectivity and spatial asymmetry. *Journal of Chemical Physics*, **2013**, 138, 044706	3.9	51
225	Modulated exponential films generated by surface acoustic waves and their role in liquid wicking and aerosolization at a pinned drop. *Physical Review E*, **2013**, 87, 053004	2.4	5
224	Plasmonic hotspots of dynamically assembled nanoparticles in nanocapillaries: Towards a micro ribonucleic acid profiling platform. *Biomicrofluidics*, **2013**, 7, 61102	3.2	12
223	Selective dynamic concentration of peptides at poles of cation-selective nanoporous granules. *Biomicrofluidics*, **2013**, 7, 44110	3.2	9

222	Nano-cone optical fiber array sensors for MiRNA profiling **2013**,		2
221	Nanoscale Electrokinetics and Microvortices: How Microhydrodynamics Affects Nanofluidic Ion Flux. *Annual Review of Fluid Mechanics*, **2012**, 44, 401-426	22	157
220	Self-similar micron-size and nanosize drops of liquid generated by surface acoustic waves. *Physical Review Letters*, **2012**, 109, 224301	7.4	13
219	Electrospray cone-jet breakup and droplet production for electrolyte solutions. *Europhysics Letters*, **2012**, 99, 64003	1.6	24
218	A nanomembrane-based nucleic acid sensing platform for portable diagnostics. *Topics in Current Chemistry*, **2011**, 304, 153-69		20
217	Paper-based microfluidic surface acoustic wave sample delivery and ionization source for rapid and sensitive ambient mass spectrometry. *Analytical Chemistry*, **2011**, 83, 3260-6	7.8	107
216	Microfluidic devices for bioapplications. *Small*, **2011**, 7, 12-48	11	362
215	Unfolding collapsed polyelectrolytes in alternating-current electric fields. *Soft Matter*, **2011**, 7, 1207-1213	3.6	21
214	Frequency dependence of alternating current electrospray ionization mass spectrometry. *Analytical Chemistry*, **2011**, 83, 3017-23	7.8	23
213	Dielectrophoretic microfluidic device for the continuous sorting of Escherichia coli from blood cells. *Biomicrofluidics*, **2011**, 5, 32005-3200515	3.2	55
212	Microscale pH regulation by splitting water. *Biomicrofluidics*, **2011**, 5, 46502-465028	3.2	60
211	Molecular detection of invasive species in heterogeneous mixtures using a microfluidic carbon nanotube platform. *PLoS ONE*, **2011**, 6, e17280	3.7	27
210	Dynamic double layer effects on ac-induced dipoles of dielectric nanocolloids. *Biomicrofluidics*, **2010**, 4,	3.2	19
209	Designing a sensitive and quantifiable nanocolloid assay with dielectrophoretic crossover frequencies. *Biomicrofluidics*, **2010**, 4, 13205	3.2	29
208	Eliminating the limiting-current phenomenon by geometric field focusing into nanopores and nanoslots. *Physical Review E*, **2010**, 81, 046301	2.4	55
207	Dynamic particle trapping, release, and sorting by microvortices on a substrate. *Physical Review E*, **2010**, 82, 026308	2.4	24
206	Changing nanoslot ion flux with a dynamic nanocolloid ion-selective filter: secondary overlimiting currents due to nanocolloid-nanoslot interaction. *Physical Review E*, **2010**, 81, 066317	2.4	18
205	Hysteretic Conformational Transition of Single Flexible Polyelectrolyte under Resonant AC Electric Polarization. *Macromolecules*, **2010**, 43, 7402-7405	5.5	20

204	Integrated AC electrokinetic cell separation in a closed-loop device. *Lab on A Chip*, **2010**, 10, 718-26	7.2	30
203	A rapid field-use assay for mismatch number and location of hybridized DNAs. *Lab on A Chip*, **2010**, 10, 828-31	7.2	60
202	Preparation of rhombus-shaped micro/nanofluidic channels with dimensions ranging from hundred nanometers to several micrometers. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 7277-81	1.3	10
201	Controlling nanoslot overlimiting current with the depth of a connecting microchamber. *Europhysics Letters*, **2010**, 90, 64004	1.6	31
200	Optimized DNA hybridization detection on nanocolloidal particles by dielectrophoresis. *Electrophoresis*, **2010**, 31, 666-71	3.6	28
199	High-frequency AC electrospray ionization source for mass spectrometry of biomolecules. *Journal of the American Society for Mass Spectrometry*, **2010**, 21, 1852-6	3.5	31
198	Electrothermal ac electro-osmosis. *Applied Physics Letters*, **2009**, 94, 024101	3.4	23
197	Preface to special topic: invited papers from the 2009 conference on advances in microfluidics and nanofluidics, the Hong Kong university of science & technology, Hong Kong, 2009. *Biomicrofluidics*, **2009**, 3, 11901	3.2	1
196	Rectification, gating voltage, and interchannel communication of nanoslot arrays due to asymmetric entrance space charge polarization. *Physical Review Letters*, **2009**, 103, 154502	7.4	55
195	Glutaraldehyde enhanced dielectrophoretic yeast cell separation. *Biomicrofluidics*, **2009**, 3, 44108	3.2	22
194	Universal nanocolloid deposition patterns: can you see the harmonics of a Taylor cone?. *New Journal of Physics*, **2009**, 11, 075023	2.9	2
193	Understanding electrokinetics at the nanoscale: A perspective. *Biomicrofluidics*, **2009**, 3, 12001	3.2	73
192	Assembly of Multi-Stranded Nanofiber Threads through AC Electrospinning. *Advanced Materials*, **2009**, 21, 349-354	24	55
191	Identification and separation of DNA-hybridized nanocolloids by Taylor cone harmonics. *Electrophoresis*, **2009**, 30, 3236-41	3.6	4
190	Rapid on-chip genetic detection microfluidic platform for real world applications. *Biomicrofluidics*, **2009**, 3, 22407	3.2	38
189	Shear and AC Field Enhanced Carbon Nanotube Impedance Assay for Rapid, Sensitive, and Mismatch-Discriminating DNA Hybridization. *ACS Nano*, **2009**, 3, 1823-30	16.7	70
188	A continuous high-throughput bioparticle sorter based on 3D traveling-wave dielectrophoresis. *Lab on A Chip*, **2009**, 9, 3193-201	7.2	101
187	Design of a Porous Electroosmotic Pump Used in Power Electronic Cooling. *IEEE Transactions on Industry Applications*, **2009**, 45, 2073-2079	4.3	20

186	Alternating Current Electrospraying. *Industrial & Engineering Chemistry Research*, **2009**, 48, 9358-9368	3.9	20
185	Nonlinear current-voltage characteristics of nanochannels. *Physical Review E*, **2009**, 79, 046305	2.4	97
184	Dielectrophoresis of ionized gas microbubbles: Dipole reversal due to diffusive double-layer polarization. *Applied Physics Letters*, **2008**, 93, 224101	3.4	5
183	Evaporative self-assembly from complex DNA-colloid suspensions. *Langmuir*, **2008**, 24, 3911-7	4	45
182	ac field enhanced protein crystallization. *Applied Physics Letters*, **2008**, 92, 223902	3.4	46
181	Dynamic superconcentration at critical-point double-layer gates of conducting nanoporous granules due to asymmetric tangential fluxes. *Biomicrofluidics*, **2008**, 2, 14102	3.2	19
180	Coupling between precipitation and contact-line dynamics: multiring stains and stick-slip motion. *Physical Review Letters*, **2008**, 100, 044503	7.4	118
179	Universal cone angle of ac electrosprays due to net charge entrainment. *Physical Review Letters*, **2008**, 101, 204501	7.4	32
178	Selection of nonequilibrium overlimiting currents: universal depletion layer formation dynamics and vortex instability. *Physical Review Letters*, **2008**, 101, 254501	7.4	179
177	Conformation and trapping rate of DNA at a convergent stagnation point. *Physical Review E*, **2008**, 77, 030801	2.4	9
176	Electro-Kinetics: A Viable Micro-Fluidic Platform for Miniature Diagnostic Kits. *Canadian Journal of Chemical Engineering*, **2008**, 84, 146-160	2.3	14
175	Bovine red blood cell starvation age discrimination through a glutaraldehyde-amplified dielectrophoretic approach with buffer selection and membrane cross-linking. *Electrophoresis*, **2008**, 29, 2272-9	3.6	45
174	Dielectrophoretic detection and quantification of hybridized DNA molecules on nano-genetic particles. *Electrophoresis*, **2008**, 29, 4808-12	3.6	47
173	Nanobead electrokinetics: The enabling microfluidic platform for rapid multi-target pathogen detection. *AICHE Journal*, **2007**, 53, 2486-2492	3.6	23
172	Open-tubular capillary electrochromatography-mass spectrometry with sheathless nanoflow electrospray ionization for analysis of amino acids and peptides. *Journal of Mass Spectrometry*, **2007**, 42, 244-53	2.2	26
171	An integrated dielectrophoretic chip for continuous bioparticle filtering, focusing, sorting, trapping, and detecting. *Biomicrofluidics*, **2007**, 1, 21503	3.2	207
170	Rapid bioparticle concentration and detection by combining a discharge driven vortex with surface enhanced Raman scattering. *Biomicrofluidics*, **2007**, 1, 14106	3.2	50
169	Effects of bulk charge and momentum relaxation time scales on ac electrospraying. *Journal of Applied Physics*, **2007**, 102, 034902	2.5	18

168	Dielectrophoretic discrimination of bovine red blood cell starvation age by buffer selection and membrane cross-linking. *Biomicrofluidics*, **2007**, 1, 44102	3.2	52
167	Induced dipoles and dielectrophoresis of nanocolloids in electrolytes. *Physical Review E*, **2007**, 75, 060501	2.4	79
166	CdSe nanowires with illumination-enhanced conductivity: Induced dipoles, dielectrophoretic assembly, and field-sensitive emission. *Journal of Applied Physics*, **2007**, 101, 073704	2.5	48
165	ac electroosmotic pumping induced by noncontact external electrodes. *Biomicrofluidics*, **2007**, 1, 34106	3.2	7
164	Miscible Fingering in Electrokinetic Flow: Symmetries and Zero Modes **2007**, 191-206		
163	Role of erythrocyte deformability during capillary wetting. *Biotechnology and Bioengineering*, **2006**, 93, 201-11	4.9	20
162	Bacteria capture, concentration and detection by alternating current dielectrophoresis and self-assembly of dispersed single-wall carbon nanotubes. *Electrophoresis*, **2006**, 27, 1376-85	3.6	73
161	An integrated micropump and electrospray emitter system based on porous silica monoliths. *Electrophoresis*, **2006**, 27, 3964-70	3.6	21
160	Electrokinetic particle aggregation patterns in microvortices due to particle-field interaction. *Physics of Fluids*, **2006**, 18, 071702	4.4	7
159	Electrowetting films on parallel line electrodes. *Physical Review E*, **2006**, 73, 011605	2.4	42
158	Polyhedra formation and transient cone ejection of a resonant microdrop forced by an ac electric field. *Physical Review Letters*, **2006**, 96, 254502	7.4	19
157	Electrohydrodynamic surface microvortices for mixing and particle trapping. *Applied Physics Letters*, **2006**, 88, 233512	3.4	44
156	A micro-scale multi-frequency reactance measurement technique to detect bacterial growth at low bio-particle concentrations. *Lab on A Chip*, **2006**, 6, 682-92	7.2	33
155	Anomalous conical menisci under an ac field-departure from the dc Taylor cone. *Applied Physics Letters*, **2006**, 89, 234103	3.4	19
154	AC electro-osmotic mixing induced by non-contact external electrodes. *Biosensors and Bioelectronics*, **2006**, 22, 563-7	11.8	22
153	Capture and release of viruses using amino-functionalized silica particles. *Analytica Chimica Acta*, **2006**, 569, 76-82	6.6	28
152	A new electro-osmotic pump based on silica monoliths. *Sensors and Actuators B: Chemical*, **2006**, 113, 500-509	8.5	102
151	Long-Range AC Electroosmotic Trapping and Detection of Bioparticles. *Industrial & Engineering Chemistry Research*, **2005**, 44, 2815-2822	3.9	116

150	A New Monolithic Electrokinetic Pump With Bubble-Less Design **2005**, 487		
149	Impedance Analysis of Blood Coagulation by Prothrombin Time Assay in a Miniature Device **2005**, 737		1
148	Application of Monolithic Silica for Microfluidic Analysis. *Bunseki Kagaku*, **2005**, 54, 583-592	0.2	2
147	Capillary penetration failure of blood suspensions. *Journal of Colloid and Interface Science*, **2005**, 287, 647-56	9.3	36
146	AC electrospray biomaterials synthesis. *Biomaterials*, **2005**, 26, 6122-8	15.6	80
145	STATIC AND SPONTANEOUS ELECTROWETTING. *Modern Physics Letters B*, **2005**, 19, 549-569	1.6	49
144	Aligning fast alternating current electroosmotic flow fields and characteristic frequencies with dielectrophoretic traps to achieve rapid bacteria detection. *Electrophoresis*, **2005**, 26, 3725-37	3.6	83
143	An electro-osmotic micro-pump based on monolithic silica for micro-flow analyses and electro-sprays. *Analytical and Bioanalytical Chemistry*, **2005**, 382, 817-24	4.4	49
142	Particle detection by electrical impedance spectroscopy with asymmetric-polarization AC electroosmotic trapping. *Microfluidics and Nanofluidics*, **2005**, 1, 161-167	2.8	96
141	A high-frequency electrospray driven by gas volume charges. *Journal of Applied Physics*, **2005**, 97, 123309	2.5	12
140	Micro-Electrical Impedance Spectroscopy for Particle Detection **2004**, 865		2
139	Non-equilibrium Transport in and on Condensed Matters: Effects of Lattice Vibration and Deterministic Chaos. *Molecular Simulation*, **2004**, 30, 159-166	2	1
138	Nonlinear electrokinetics and "superfast" electrophoresis. *Journal of Colloid and Interface Science*, **2004**, 276, 483-97	9.3	58
137	Electrokinetic micropump and micromixer design based on ac faradaic polarization. *Journal of Applied Physics*, **2004**, 96, 1730-1733	2.5	118
136	Microfluidic Mixing by dc and ac Nonlinear Electrokinetic Vortex Flows. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2902-2911	3.9	50
135	A new ac electrospray mechanism by Maxwell-Wagner polarization and capillary resonance. *Physical Review Letters*, **2004**, 92, 133902	7.4	88
134	Micro-Fluidic Technologies for Blood Diagnostics **2004**, 7		
133	Response to Comment on Does lattice vibration drive diffusion in zeolites? [J. Chem. Phys. 114, 3776 (2001)]. *Journal of Chemical Physics*, **2003**, 118, 3441-3442	3.9	3

132	Dynamic synchronization analysis of venous pressure-driven cardiac output in rainbow trout. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2003**, 285, R889-96	3.2	13
131	Manipulation and characterization of red blood cells with alternating current fields in microdevices. *Electrophoresis*, **2003**, 24, 3703-17	3.6	101
130	Electrokinetic mixing vortices due to electrolyte depletion at microchannel junctions. *Journal of Colloid and Interface Science*, **2003**, 263, 133-43	9.3	45
129	Knudsen diffusivity of a hard sphere in a rough slit pore. *Physical Review Letters*, **2003**, 91, 026102	7.4	73
128	Molecular Simulations of Knudsen Wall-slip: Effect of Wall Morphology. *Molecular Simulation*, **2003**, 29, 697-709	2	98
127	Hyperbolic Homogenized Models for Thermal and Solutal Dispersion. *SIAM Journal on Applied Mathematics*, **2003**, 63, 1231-1258	1.8	37
126	Nonthermal transport of small sorbates in zeolites: Chaotic dynamics and long jumps. *Journal of Chemical Physics*, **2003**, 119, 4573-4581	3.9	1
125	Electrokinetic transport of red blood cells in microcapillaries. *Electrophoresis*, **2002**, 23, 2165-73	3.6	68
124	Nonlinear analysis of tilted toroidal thermosyphon models. *International Journal of Heat and Mass Transfer*, **2002**, 45, 1379-1391	4.9	5
123	Electrokinetic displacement of air bubbles in microchannels. *Physics of Fluids*, **2002**, 14, 1-14	4.4	96
122	Drop Formation on a Coated Vertical Fiber. *Studies in Interface Science*, **2002**, 363-383		32
121	Complex Stain Morphologies. *Industrial & Engineering Chemistry Research*, **2002**, 41, 6256-6269	3.9	76
120	Mechanism for Helical Gel Formation from Evaporation of Colloidal Solutions. *Langmuir*, **2002**, 18, 8792-8798	4	8
119	A spectral theory for small-amplitude miscible fingering. *Physics of Fluids*, **2002**, 14, 999-1010	4.4	62
118	Nanoscale pore formation dynamics during aluminum anodization. *Chaos*, **2002**, 12, 240-251	3.3	80
117	Nonlinear electrokinetic ejection and entrainment due to polarization at nearly insulated wedges. *Physics of Fluids*, **2002**, 14, 4315-4328	4.4	118
116	Noise-driven wave transitions on a vertically falling film. *Journal of Fluid Mechanics*, **2002**, 462, 255-283	3.7	27
115	Nonlinear Smoluchowski slip velocity and micro-vortex generation. *Journal of Fluid Mechanics*, **2002**, 461, 229-238	3.7	110

114	Estimate of Turbulent Eddy Diffusion by Exact Renormalization. *SIAM Journal on Applied Mathematics*, **2002**, 63, 1-41	1.8	1
113	AIR ENTRAINMENT AT LOW VISCOSITIES **2002**, 264-264		
112	COARSENING DYNAMICS OF ROLL WAVES **2002**, 51-60		
111	Circular Hydraulic Jumps Triggered by Boundary Layer Separation. *Journal of Colloid and Interface Science*, **2001**, 233, 329-338	9.3	
110	Designing a fast-igniting catalytic converter system. *AICHE Journal*, **2001**, 47, 650-663	3.6	14
109	Analysis of heat transfer enhancement in coiled-tube heat exchangers. *International Journal of Heat and Mass Transfer*, **2001**, 44, 3189-3199	4.9	71
108	A critical comparison of equilibrium, non-equilibrium and boundary-driven molecular dynamics techniques for studying transport in microporous materials. *Journal of Chemical Physics*, **2001**, 115, 8112-8124	3.9	153
107	Diffusion of inert gases in silica sodalite: Importance of lattice flexibility. *Journal of Chemical Physics*, **2001**, 115, 9519-9527	3.9	43
106	Does lattice vibration drive diffusion in zeolites?. *Journal of Chemical Physics*, **2001**, 114, 3776-3789	3.9	39
105	Effect of the Surface Energy Barrier on Sorbate Diffusion in AlPO4-5. *Journal of Physical Chemistry B*, **2001**, 105, 2725-2735	3.4	62
104	Wave dynamics in two-layer Couette flow. *Chemical Engineering Science*, **2000**, 55, 345-362	4.4	7
103	Wave-enhanced interfacial transfer. *Chemical Engineering Science*, **2000**, 55, 1127-1141	4.4	46
102	Kopelevich and chang reply:. *Physical Review Letters*, **2000**, 85, 901	7.4	
101	Coherent structures, self-similarity, and universal roll wave coarsening dynamics. *Physics of Fluids*, **2000**, 12, 2268-2278	4.4	25
100	Efficient viscosity estimation from molecular dynamics simulation via momentum impulse relaxation. *Journal of Chemical Physics*, **2000**, 113, 2079-2087	3.9	46
99	Coarsening Dynamics of Roll Waves. *Fluid Mechanics and Its Applications*, **2000**, 21-31	0.2	
98	Unusual Contact-Line Dynamics of Thick Films and Drops. *Journal of Colloid and Interface Science*, **1999**, 215, 425-440	9.3	11
97	Iterated stretching of viscoelastic jets. *Physics of Fluids*, **1999**, 11, 1717-1737	4.4	92

96	A spectral theory for fingering on a prewetted plane. *Physics of Fluids*, **1999**, 11, 2494-2515	4.4	49
95	A New Design of Reverse-Flow Reactors with Enhanced Thermal Dispersion. *Industrial & Engineering Chemistry Research*, **1999**, 38, 667-682	3.9	8
94	Nonequilibrium Diffusion in Zeolites due to Deterministic Hamiltonian Chaos. *Physical Review Letters*, **1999**, 83, 1590-1593	7.4	11
93	Mechanism for drop formation on a coated vertical fibre. *Journal of Fluid Mechanics*, **1999**, 380, 233-255	3.7	60
92	Pattern selection during electropolishing due to double-layer effects. *Chaos*, **1999**, 9, 62-77	3.3	42
91	A Molecular Theory for Dynamic Contact Angles **1999**, 321-337		5
90	Heat transfer enhancement in three-dimensional corrugated channel flow. *International Journal of Heat and Mass Transfer*, **1998**, 41, 3559-3573	4.9	80
89	Generation and Suppression of Radiation by Solitary Pulses. *SIAM Journal on Applied Mathematics*, **1998**, 58, 1246-1277	1.8	27
88	Front interaction on a ring electrode. *Physical Review E*, **1998**, 57, 5196-5201	2.4	5
87	Front dynamics and fingering of a driven contact line. *Journal of Fluid Mechanics*, **1998**, 373, 81-110	3.7	49
86	Stabilization mechanisms of short waves in stratified gas□quid flow. *Physics of Fluids*, **1997**, 9, 919-939	4.4	15
85	Nonlinear wave-number selection in gradient-flow systems. *Physical Review E*, **1997**, 55, 2818-2834	2.4	7
84	Drop fall-off from pendent rivulets. *Journal of Fluid Mechanics*, **1997**, 338, 173-201	3.7	19
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