Edward P Furlani

List of Publications by Year
in descending order

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53 papers	1,602 citations	304743 22 h-index	302126 39 g-index
54 all docs	54 docs citations	54 times ranked	2263 citing authors

#	Article	IF	Citations
1	A model for predicting magnetic targeting of multifunctional particles in the microvasculature. Journal of Magnetism and Magnetic Materials, 2007, 312, 187-193.	2.3	128
2	Subwavelength Direct Laser Patterning of Conductive Gold Nanostructures by Simultaneous Photopolymerization and Photoreduction. ACS Nano, 2011, 5, 1947-1957.	14.6	110
3	Designing ultrathin film composite membranes: the impact of a gutter layer. Scientific Reports, 2015, 5, 15016.	3.3	98
4	Magnetic Biotransport: Analysis and Applications. Materials, 2010, 3, 2412-2446.	2.9	97
5	Room-Temperature Synthesis of Covellite Nanoplatelets with Broadly Tunable Localized Surface Plasmon Resonance. Chemistry of Materials, 2015, 27, 2584-2590.	6.7	83
6	Magnetic levitation-based electromagnetic energy harvesting: a semi-analytical non-linear model for energy transduction. Scientific Reports, 2016, 6, 18579.	3.3	79
7	The effect of static magnetic fields and tat peptides on cellular and nuclear uptake of magnetic nanoparticles. Biomaterials, 2010, 31, 4392-4400.	11.4	68
8	Analysis of separators for magnetic beads recovery: From large systems to multifunctional microdevices. Separation and Purification Technology, 2017, 172, 16-31.	7.9	61
9	Effects of particleâ€“fluid coupling on particle transport and capture in a magnetophoretic microsystem. Microfluidics and Nanofluidics, 2012, 12, 565-580.	2.2	54
10	Analysis of pulsed laser plasmon-assisted photothermal heating and bubble generation at the nanoscale. Lab on A Chip, 2012, 12, 3707.	6.0	53
11	Scalability analysis of magnetic bead separation in a microchannel with an array of soft magnetic elements in a uniform magnetic field. Separation and Purification Technology, 2014, 125, 311-318.	7.9	44
12	Field, force and transport analysis for magnetic particle-based gene delivery. Microfluidics and Nanofluidics, 2012, 13, 589-602.	2.2	37
13	Coupled particleâ€“fluid transport and magnetic separation in microfluidic systems with passive magnetic functionality. Journal Physics D: Applied Physics, 2013, 46, 125002.	2.8	34
14	Self-Assembly of Crystalline Structures of Magnetic Coreâ€“Shell Nanoparticles for Fabrication of Nanostructured Materials. ACS Applied Materials & Interfaces, 2015, 7, 22515-22524.	8.0	33
15	Theoretical Comparison of Optical Properties of Near-Infrared Colloidal Plasmonic Nanoparticles. Scientific Reports, 2016, 6, 34189.	3.3	31
16	Geometric Restriction of Gas Permeance in Ultrathin Film Composite Membranes Evaluated Using an Integrated Experimental and Modeling Approach. Industrial & Engineering Chemistry Research, 2017, 56, 351-358.	3.7	31
17	Template-assisted nano-patterning of magnetic coreâ€“shell particles in gradient fields. Physical Chemistry Chemical Physics, 2014, 16, 13306-13317.	2.8	28
18	New cosurface capacitive stimulators for the development of active osseointegrative implantable devices. Scientific Reports, 2016, 6, 30231.	3.3	28

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19	Interaction of Structured Light with a Chiral Plasmonic Metasurface: Giant Enhancement of Chiro-Optic Response. ACS Photonics, 2018, 5, 734-740.	6.6	27
20	Phospholipid micelle-based magneto-plasmonic nanoformulation for magnetic field-directed, imaging-guided photo-induced cancer therapy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 1192-1202.	3.3	26
21	Analysis of the Dynamics of Magnetic Coreâ€“Shell Nanoparticles and Self-Assembly of Crystalline Superstructures in Gradient Fields. Journal of Physical Chemistry C, 2015, 119, 5714-5726.	3.1	26
22	Capacitive technologies for highly controlled and personalized electrical stimulation by implantable biomedical systems. Scientific Reports, 2019, 9, 5001.	3.3	26
23	Photonic and Thermofluidic Analysis of Colloidal Plasmonic Nanorings and Nanotori for Pulsed-Laser Photothermal Applications. Journal of Physical Chemistry C, 2013, 117, 20178-20185.	3.1	24
24	Numerical Analysis of Bead Magnetophoresis from Flowing Blood in a Continuous-Flow Microchannel: Implications to the Bead-Fluid Interactions. Scientific Reports, 2019, 9, 7265.	3.3	23
25	Optical nanotrapping using cloaking metamaterial. Physical Review E, 2009, 79, 026607.	2.1	22
26	Electromagnetic enhancement in lossy optical transition metamaterials. Optics Letters, 2010, 35, 3240.	3.3	22
27	A Model for Predicting Field-Directed Particle Transport in the Magnetofection Process. Pharmaceutical Research, 2012, 29, 1366-1379.	3.5	22
28	Plasmon-Enhanced Metasurfaces for Controlling Optical Polarization. ACS Photonics, 2014, 1, 507-515.	6.6	21
29	Optical Fano Resonance in Self-Assembled Magneticâ€“Plasmonic Nanostructures. Journal of Physical Chemistry C, 2016, 120, 27555-27561.	3.1	21
30	Magnetic Bead Separation from Flowing Blood in a Two-Phase Continuous-Flow Magnetophoretic Microdevice: Theoretical Analysis through Computational Fluid Dynamics Simulation. Journal of Physical Chemistry C, 2017, 121, 7466-7477.	3.1	21
31	Computational modeling and fluorescence microscopy characterization of a two-phase magnetophoretic microsystem for continuous-flow blood detoxification. Lab on A Chip, 2018, 18, 1593-1606.	6.0	21
32	Magnetofection Mediated Transient NANOG Overexpression Enhances Proliferation and Myogenic Differentiation of Human Hair Follicle Derived Mesenchymal Stem Cells. Bioconjugate Chemistry, 2015, 26, 1314-1327.	3.6	19
33	Towards an effective sensing technology to monitor micro-scale interface loosening of bioelectronic implants. Scientific Reports, 2021, 11, 3449.	3.3	18
34	Plasmonic Nanoframes for Photothermal Energy Conversion. Journal of Physical Chemistry C, 2016, 120, 7256-7264.	3.1	17
35	Theoretical Study of the Self-Assembly and Optical Properties of 1D Chains of Magneticâ€“Plasmonic Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 9489-9496.	3.1	17
36	Formation and manipulation of ferrofluid droplets with magnetic fields in a microdevice: a numerical parametric study. Soft Matter, 2020, 16, 9506-9518.	2.7	17

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37	Capacitive interdigitated system of high osteoinductive/conductive performance for personalized acting-sensing implants. Npj Regenerative Medicine, 2021, 6, 80.	5.2	15
38	Free-space excitation of resonant cavities formed from cloaking metamaterial. Journal of Modern Optics, 2009, 56, 523-529.	1.3	12
39	Two-Step Numerical Approach To Predict Ferrofluid Droplet Generation and Manipulation inside Multilaminar Flow Chambers. Journal of Physical Chemistry C, 2019, 123, 10065-10080.	3.1	12
40	Field Analysis. , 2001, , 97-205.		9
41	Negative refractivity assisted optical power limiting. Journal of Applied Physics, 2007, 102, 043101.	2.5	8
42	Laser nanotrapping and manipulation of nanoscale objects using subwavelength apertured plasmonic media. Journal of Applied Physics, 2008, 103, 084316.	2.5	8
43	Antiresonant guiding optofluidic biosensor. Optics Communications, 2011, 284, 4094-4098.	2.1	8
44	Optimization of Optical Absorption of Colloids of SiO2@Au and Fe3O4@Au Nanoparticles with Constraints. Scientific Reports, 2016, 6, 35911.	3.3	8
45	Coherent Raman spectroscopic imaging to characterize microglia activation pathway. Journal of Biophotonics, 2019, 12, e201800133.	2.3	6
46	Size Effects in Vibrating Silicon Crystal Microbeams. Journal of Engineering Mechanics - ASCE, 2019, 145, .	2.9	6
47	Tunable Bloch Wave Resonances and Bloch Gaps in Uniform Materials with Reconfigurable Boundary Profiles. Physical Review Letters, 2016, 116, 206802.	7.8	5
48	The role of pH fronts, chlorination and physicochemical reactions in tumor necrosis in the electrochemical treatment of tumors: A numerical study. Electrochimica Acta, 2019, 307, 129-147.	5.2	5
49	Maximizing derivable information from cytologic specimens for pathologic and molecular diagnostics. Journal of the American Society of Cytopathology, 2015, 4, 141-147.	0.5	2
50	A numerical study of the photothermal behaviour of near-infrared plasmonic colloids. RSC Advances, 2016, 6, 100670-100675.	3.6	2
51	Hybridization of plasmon modes in multishell bimetallic nanoparticles: a numerical study. Journal of Nanophotonics, 2020, 14, 1.	1.0	2
52	Theoretical study of the photothermal behaviour of self-assembled magneticâ€“plasmonic chain structures. Physical Chemistry Chemical Physics, 2017, 19, 31613-31620.	2.8	1
53	Computational Analysis of a Two-Phase Continuous-Flow Magnetophoretic Microsystem for Particle Separation from Biological Fluids. Computer Aided Chemical Engineering, 2017, 40, 1183-1188.	0.5	1