## Ester Segal

# List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

3,064 109 31 52 h-index g-index citations papers 6.5 115 3,512 5.57 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
109	Aptasensors versus immunosensors-Which will prevail?. Engineering in Life Sciences, 2022, 22, 319-333	3.4	3
108	Semiconducting silicon nanowires and nanowire composites for biosensing and therapy <b>2022</b> , 363-378		
107	Paving the Way to Overcome Antifungal Drug Resistance: Current Practices and Novel Developments for Rapid and Reliable Antifungal Susceptibility Testing <i>Small Methods</i> , <b>2021</b> , 5, e21007	12.8	2
106	Design considerations of aptasensors for continuous monitoring of biomarkers in digestive tract fluids <i>Talanta</i> , <b>2021</b> , 239, 123124	6.2	
105	Porous Silicon-Based Aptasensors: Toward Cancer Protein Biomarker Detection. <i>ACS Measurement Science Au</i> , <b>2021</b> , 1, 82-94		5
104	Antibody-Functionalized Halloysite Nanotubes for Targeting Bacterial Cells. <i>ACS Applied Bio Materials</i> , <b>2021</b> , 4, 4094-4104	4.1	3
103	3D-printed microfluidics integrated with optical nanostructured porous aptasensors for protein detection. <i>Mikrochimica Acta</i> , <b>2021</b> , 188, 67	5.8	15
102	Morlet Wavelet Filtering and Phase Analysis to Reduce the Limit of Detection for Thin Film Optical Biosensors. <i>ACS Sensors</i> , <b>2021</b> , 6, 2967-2978	9.2	6
101	Lab-on-a-Chip Devices for Point-of-Care Medical Diagnostics. <i>Advances in Biochemical Engineering/Biotechnology</i> , <b>2020</b> , 1	1.7	17
100	Aptamers vs. antibodies as capture probes in optical porous silicon biosensors. <i>Analyst, The</i> , <b>2020</b> , 145, 4991-5003	5	32
99	Halloysite nanotubes - the nano-bio interface. <i>Nanoscale</i> , <b>2020</b> , 12, 23444-23460	7.7	19
98	Aptasensors for Point-of-Care Detection of Small Molecules. <i>Biosensors</i> , <b>2020</b> , 10,	5.9	13
97	Antifungal Susceptibility Testing of on Silicon Microwells by Intensity-Based Reflectometric Interference Spectroscopy. <i>ACS Infectious Diseases</i> , <b>2020</b> , 6, 2560-2566	5.5	4
96	Mass Transfer Limitations of Porous Silicon-Based Biosensors for Protein Detection. <i>ACS Sensors</i> , <b>2020</b> , 5, 3058-3069	9.2	16
95	Increased surface area of halloysite nanotubes due to surface modification predicts lung inflammation and acute phase response after pulmonary exposure in mice. <i>Environmental Toxicology and Pharmacology</i> , <b>2020</b> , 73, 103266	5.8	16
94	Designing Porous Silicon Films as Carriers of Nerve Growth Factor. <i>Journal of Visualized Experiments</i> , <b>2019</b> ,	1.6	2
93	Characterization of surface phenomena: probing early stage degradation of low-density polyethylene films. <i>Polymer Engineering and Science</i> , <b>2019</b> , 59, E129-E137	2.3	10

### (2017-2019)

92	Neuroprotective Effect of Nerve Growth Factor Loaded in Porous Silicon Nanostructures in an Alzheimer Disease Model and Potential Delivery to the Brain. <i>Small</i> , <b>2019</b> , 15, e1904203	11	13
91	Porous Materials: Neuroprotective Effect of Nerve Growth Factor Loaded in Porous Silicon Nanostructures in an Alzheimer's Disease Model and Potential Delivery to the Brain (Small 45/2019). <i>Small</i> , <b>2019</b> , 15, 1970245	11	
90	Rapid diagnostic susceptibility testing of bacteria and fungi from clinical samples using silicon gratings <b>2019</b> ,		5
89	Bone Morphogenic Protein 2-Loaded Porous Silicon Carriers for Osteoinductive Implants. <i>Pharmaceutics</i> , <b>2019</b> , 11,	6.4	9
88	Designing Bacterial Chemotactic Receptors Guided by Photonic Femtoliter Well Arrays for Quantifiable, Label-Free Measurement of Bacterial Chemotaxis. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 603-612	5.5	3
87	Porous Silicon-Based Photonic Biosensors: Current Status and Emerging Applications. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 441-467	7.8	89
86	Label-free optical monitoring of proteolytic reaction products using nanoporous silica colloidal assembly. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 262, 796-800	8.5	3
85	Synthesis and characterization of a nanostructured porous silicon/carbon dot-hybrid for orthogonal molecular detection. <i>NPG Asia Materials</i> , <b>2018</b> , 10, e463-e463	10.3	18
84	Antimicrobial Carvacrol-Containing Polypropylene Films: Composition, Structure and Function. <i>Polymers</i> , <b>2018</b> , 10,	4.5	28
83	Occupational exposure during handling and loading of halloysite nanotubes IA case study of counting nanofibers. <i>NanoImpact</i> , <b>2018</b> , 10, 153-160	5.6	22
82	Unraveling bacterial networks and their antimicrobial susceptibility on silicon microarchitectures using intrinsic phase-shift spectroscopy <b>2018</b> ,		1
81	Porous Silicon Polymer Composites <b>2018</b> , 1-12		
80	Porous Silicon Optical Biosensors <b>2018</b> , 1263-1273		
79	Porous Silicon Polymer Composites <b>2018</b> , 269-280		2
78	Porous Silicon Bragg Reflector/Carbon Dot Hybrids: Synthesis, Nanostructure, and Optical Properties. <i>Frontiers in Chemistry</i> , <b>2018</b> , 6, 574	5	9
77	Antimicrobial LDPE/EVOH Layered Films Containing Carvacrol Fabricated by Multiplication Extrusion. <i>Polymers</i> , <b>2018</b> , 10,	4.5	14
76	Recent Advances in the Race to Design a Rapid Diagnostic Test for Antimicrobial Resistance. <i>ACS Sensors</i> , <b>2018</b> , 3, 2202-2217	9.2	62
75	Active food packaging films with synergistic antimicrobial activity. <i>Food Control</i> , <b>2017</b> , 76, 117-126	6.2	92

74	Rapid and label-free detection of protein a by aptamer-tethered porous silicon nanostructures. <i>Journal of Biotechnology</i> , <b>2017</b> , 257, 171-177	3.7	39
73	Unraveling Antimicrobial Susceptibility of Bacterial Networks on Micropillar Architectures Using Intrinsic Phase-Shift Spectroscopy. <i>ACS Nano</i> , <b>2017</b> , 11, 6167-6177	16.7	38
72	Aptamer-based detection of adenosine triphosphate via qPCR. <i>Talanta</i> , <b>2017</b> , 172, 199-205	6.2	11
71	Light-triggered antifouling coatings for porous silicon optical transducers. <i>Polymers for Advanced Technologies</i> , <b>2017</b> , 28, 859-866	3.2	2
70	Prolonged controlled delivery of nerve growth factor using porous silicon nanostructures. <i>Journal of Controlled Release</i> , <b>2017</b> , 257, 51-59	11.7	27
69	Correlating chemical and physical changes of photo-oxidized low-density polyethylene to the activation energy of water release. <i>Polymer Testing</i> , <b>2017</b> , 64, 194-199	4.5	7
68	On Chip Protein Pre-Concentration for Enhancing the Sensitivity of Porous Silicon Biosensors. <i>ACS Sensors</i> , <b>2017</b> , 2, 1767-1773	9.2	31
67	Porous Silicon-Polymer Composites <b>2017</b> , 1-12		О
66	Online analysis of protein inclusion bodies produced in E. coli by monitoring alterations in scattered and reflected light. <i>Applied Microbiology and Biotechnology</i> , <b>2016</b> , 100, 4147-59	5.7	9
65	Whole-cell detection of live lactobacillus acidophilus on aptamer-decorated porous silicon biosensors. <i>Analyst, The</i> , <b>2016</b> , 141, 5432-40	5	55
64	Porous Silicon-Based Biosensors: Towards Real-Time Optical Detection of Target Bacteria in the Food Industry. <i>Scientific Reports</i> , <b>2016</b> , 6, 38099	4.9	47
63	Active packaging containing encapsulated carvacrol for control of postharvest decay. <i>Postharvest Biology and Technology</i> , <b>2016</b> , 118, 175-182	6.2	38
62	Mechanism of erosion of nanostructured porous silicon drug carriers in neoplastic tissues. <i>Nature Communications</i> , <b>2015</b> , 6, 6208	17.4	87
61	Tethered Lipid Bilayers within Porous Si Nanostructures: A Platform for (Optical) Real-Time Monitoring of Membrane-Associated Processes. <i>Langmuir</i> , <b>2015</b> , 31, 5244-51	4	14
60	Detection of trace heavy metal ions in water by nanostructured porous Si biosensors. <i>Analyst, The</i> , <b>2015</b> , 140, 4507-14	5	34
59	Porous Silicon Biosensors Employing Emerging Capture Probes. <i>Springer Series in Materials Science</i> , <b>2015</b> , 93-116	0.9	4
58	Optical biosensors for bacteria detection by a peptidomimetic antimicrobial compound. <i>Analyst, The,</i> <b>2015</b> , 140, 7726-33	5	25
57	Antibacterial and antifungal LDPE films for active packaging. <i>Polymers for Advanced Technologies</i> , <b>2015</b> , 26, 110-116	3.2	47

### (2013-2015)

56	LDPE/clay/carvacrol nanocomposites with prolonged antimicrobial activity. <i>Journal of Applied Polymer Science</i> , <b>2015</b> , 132,	2.9	31	
55	Optical Biosensors: Oxidized Porous Silicon Nanostructures Enabling Electrokinetic Transport for Enhanced DNA Detection (Adv. Funct. Mater. 43/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 6824-0	68 <sup>1</sup> 254 <sup>6</sup>	1	
54	Oxidized Porous Silicon Nanostructures Enabling Electrokinetic Transport for Enhanced DNA Detection. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 6725-6732	15.6	46	
53	Porous silicon for cancer therapy: from fundamental research to the clinic. <i>Reviews in Chemical Engineering</i> , <b>2015</b> , 31,	5	13	
52	Combination of CuO nanoparticles and fluconazole: preparation, characterization, and antifungal activity against Candida albicans. <i>Journal of Nanoparticle Research</i> , <b>2015</b> , 17, 1	2.3	31	
51	Label-free optical biosensors based on aptamer-functionalized porous silicon scaffolds. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 1999-2006	7.8	75	
50	Biocatalytic carbon nanotube paper: a Tone-potTroute for fabrication of enzyme-immobilized membranes for organophosphate bioremediation. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 915-922	7.3	27	
49	Polymer: Porous Silicon Composites <b>2014</b> , 1-10			
48	Porous Silicon Optical Biosensors <b>2014</b> , 1-11		1	
47	Trap and track: designing self-reporting porous Si photonic crystals for rapid bacteria detection. <i>Analyst, The</i> , <b>2014</b> , 139, 3885-94	5	32	
46	Nanostructured porous Si optical biosensors: effect of thermal oxidation on their performance and properties. <i>ACS Applied Materials &amp; Discourse (Materials &amp; Materials &amp; Mate</i>	9.5	28	
45	Polymer - Porous Silicon Composites <b>2014,</b> 187-198		2	
44	Porous Silicon Optical Biosensors <b>2014</b> , 857-868		8	
43	Polymer : Porous Silicon Composites <b>2014</b> , 1-11			
42	Engineering porous silicon nanostructures as tunable carriers for mitoxantrone dihydrochloride. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 6208-17	10.8	42	
41	Dual-functionalized porous Si/hydrogel hybrid for label-free biosensing of organophosphorus compounds. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 7353-60	7.8	29	
40	Optical biosensing of bacteria and cells using porous silicon based, photonic lamellar gratings. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 033702	3.4	26	
39	Mathematical modeling of drug release from nanostructured porous Si: combining carrier erosion and hindered drug diffusion for predicting release kinetics. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8346-53	10.8	30	

38	Picking up the pieces: a generic porous Si biosensor for probing the proteolytic products of enzymes. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 1951-6	7.8	35
37	Nanostructured Conducting Polymers for Sensor Development <b>2013</b> , 489-521		1
36	Highly-Tunable Polymer/CNTs Nanostructures: A Rapid and Facile Approach for Controlled Architecture and Composition. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1505, 1		
35	Biosensor based on DNA directed immobilization of enzymes onto optically sensitive porous Si. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1569, 195-200		O
34	Designing porous silicon-based microparticles as carriers for controlled delivery of mitoxantrone dihydrochloride. <i>Journal of Materials Research</i> , <b>2013</b> , 28, 231-239	2.5	16
33	Bombarding cancer: biolistic delivery of therapeutics using porous Si carriers. <i>Scientific Reports</i> , <b>2013</b> , 3, 2499	4.9	25
32	Optical detection of E. coli bacteria by mesoporous silicon biosensors. <i>Journal of Visualized Experiments</i> , <b>2013</b> , e50805	1.6	8
31	Hydrogels synthesized in electrochemically machined porous Si hosts: effect of nano-scale confinement on polymer properties. <i>Soft Matter</i> , <b>2012</b> , 8, 9166	3.6	19
30	Surface Engineered Porous Silicon-based Nanostructures for Cancer Therapy. <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1416, 31		
29	Highly-Tunable Polymer/Carbon Nanotubes Systems: Preserving Dispersion Architecture in Solid Composites via Rapid Microfiltration. <i>ACS Macro Letters</i> , <b>2012</b> , 1, 848-852	6.6	23
28	DNA-directed immobilization of horseradish peroxidase onto porous SiO2 optical transducers. <i>Nanoscale Research Letters</i> , <b>2012</b> , 7, 443	5	25
27	Advancing nanostructured porous si-based optical transducers for label free bacteria detection. <i>Advances in Experimental Medicine and Biology</i> , <b>2012</b> , 733, 37-45	3.6	19
26	Structure and properties of multi-walled carbon nanotube porous sheets with enhanced elongation. <i>Journal of Materials Science</i> , <b>2012</b> , 47, 6131-6140	4.3	14
25	Functional Nanostructured Porous Si/Hydrogel Hybrids: Synthesis, Characterization and Applications. <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1403, 108		
24	Engineering nanostructured porous SiO2 surfaces for bacteria detection via "direct cell capture". <i>Analytical Chemistry</i> , <b>2011</b> , 83, 3282-9	7.8	101
23	Nanostructured porous silicon-polymer-based hybrids: from biosensing to drug delivery. <i>Nanomedicine</i> , <b>2011</b> , 6, 1755-70	5.6	95
22	Compatibility of cancer cells with nanostructured oxidized porous silicon substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2011</b> , 8, 1903-1907		5
21	Preparation and characterization of a pH- and thermally responsive poly(N-isopropylacrylamide-co-acrylic acid)/porous SiO(2) hybrid. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 826-833	15.6	51

#### (2000-2010)

20	Construction and Characterization of Porous SiO2/Hydrogel Hybrids as Optical Biosensors for Rapid Detection of Bacteria. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 2269-2277	15.6	100
19	Grafting stimuli-responsive polymer brushes to freshly-etched porous silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2009</b> , 6, 1717-1720		21
18	Oxidation-triggered release of fluorescent molecules or drugs from mesoporous Si microparticles. <i>ACS Nano</i> , <b>2008</b> , 2, 2401-9	16.7	141
17	Confinement of Thermoresponsive Hydrogels in Nanostructured Porous Silicon Dioxide Templates. <i>Advanced Functional Materials</i> , <b>2007</b> , 17, 1153-1162	15.6	100
16	Porous silicon-based polymer replicas formed by bead patterning. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2007</b> , 204, 1383-1387	1.6	19
15	Electrically conductive sensors for liquids based on quaternary ethylene vinyl acetate (EVA)/copolyamide/maleated-EVA/polyaniline blends. <i>Journal of Applied Polymer Science</i> , <b>2006</b> , 101, 110-117	2.9	4
14	Local heating of discrete droplets using magnetic porous silicon-based photonic crystals. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 7938-46	16.4	53
13	Polystyrene/polyaniline nanoblends for sensing of aliphatic alcohols. <i>Sensors and Actuators B: Chemical</i> , <b>2005</b> , 104, 140-150	8.5	57
12	Chemical sensing materials based on electrically-conductive immiscible polymer blends. <i>Polymer International</i> , <b>2005</b> , 54, 1065-1075	3.3	23
11	Electrically conductive sensors for liquids based on ternary immiscible polymer blends containing polyaniline. <i>Polymers for Advanced Technologies</i> , <b>2004</b> , 15, 573-582	3.2	5
10	Electrically conductive composites based on epoxy resin containing polyaniline DBSA- and polyaniline DBSA-coated glass fibers. <i>Journal of Applied Polymer Science</i> , <b>2004</b> , 91, 1329-1334	2.9	31
9	Sensing of liquids by electrically conductive immiscible polypropylene/thermoplastic polyurethane blends containing carbon black. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2003</b> , 41, 1428-1440	2.6	53
8	Electrically conductive composites based on epoxy resin with polyaniline-DBSA fillers. <i>Synthetic Metals</i> , <b>2003</b> , 132, 269-278	3.6	81
7	Polymerization of anilinium DBSA in the presence of clay particles: kinetics and formation of core-shell structures. <i>Polymers for Advanced Technologies</i> , <b>2002</b> , 13, 16-24	3.2	20
6	Thermoplastic polyurethanellarbon black compounds: Structure, electrical conductivity and sensing of liquids. <i>Polymer Engineering and Science</i> , <b>2002</b> , 42, 2430-2439	2.3	43
5	Electrical Conductivity of High Impact Polystyrene/Liquid Crystalline Polymer/ Carbon Black Ternary Systems. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 725, 1		1
4	Polyaniline DBSA/organophilic clay nanocomposites: synthesis and characterization. <i>Synthetic Metals</i> , <b>2002</b> , 128, 115-120	3.6	153
3	Polymerization of anilinium/DBSA in the presence of clay particles: Catalysis and encapsulation. <i>Polymer Engineering and Science</i> , <b>2000</b> , 40, 1915-1920	2.3	21

2 Polyaniline DBSA/polymer blends prepared via aqueous dispersions. Synthetic Metals, 2000, 110, 189-1933.6 101

Polymerization of aniline in the presence of DBSA in an aqueous dispersion. *Synthetic Metals*, **1999**, 106, 59-66