

# Babak Shokri

## List of Publications by Year in descending order

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Version: 2024-02-01

114  
papers

1,524  
citations

304743

22  
h-index

395702

33  
g-index

116  
all docs

116  
docs citations

116  
times ranked

1646  
citing authors

#	ARTICLE	IF	CITATIONS
1	Standard variable short period microwave-plasma undulator. <i>Waves in Random and Complex Media</i> , 2023, 33, 1045-1059.	2.7	0
2	Efficacy and safety of non-thermal nitrogen plasma versus long-pulsed Nd:YAG laser for hand rejuvenation. <i>Lasers in Medical Science</i> , 2022, 37, 181-191.	2.1	7
3	The effect of temperature on frequency and instability variations in a smooth-bore magnetron. <i>Physics of Plasmas</i> , 2022, 29, 013106.	1.9	1
4	Increasing DESI-MS Ion Signal by Plasma Treatment. <i>Journal of the American Society for Mass Spectrometry</i> , 2022, , .	2.8	1
5	The effect of temperature on frequency and instability variations in a smooth-bore relativistic magnetron. <i>Physics of Plasmas</i> , 2022, 29, 063107.	1.9	0
6	Optimizing the operating conditions for hydrogen-rich syngas production in a plasma co-gasification process of municipal solid waste and coal using Aspen Plus. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 26891-26900.	7.1	13
7	Protein ion yield enhancement in matrix-assisted laser desorption/ionization mass spectrometry after sample and matrix low-pressure glow discharge plasma irradiation. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8964.	1.5	3
8	Treatment of starch films with a glow discharge plasma in air and O <sub>2</sub> at low pressure. <i>Food Science and Technology International</i> , 2021, 27, 276-285.	2.2	10
9	Dry Reforming of Methane over Ni <sup>3</sup> -MgO Catalysts in a Coaxial Dielectric Barrier Discharge Reactor. <i>Chemical Engineering and Technology</i> , 2021, 44, 589-599.	1.5	5
10	Characterization of physicochemical and antimicrobial properties of plasma-treated starch/chitosan composite film. <i>Packaging Technology and Science</i> , 2021, 34, 385-392.	2.8	13
11	Flame versus air atmospheric gliding arc plasma treatment of polypropylene-based automotive bumpers: Physicochemical characterization and investigation of coating properties. <i>Polymer Engineering and Science</i> , 2021, 61, 1581-1593.	3.1	6
12	Antitumor Effects in Gas Plasma-Treated Patient-Derived Microtissues—An Adjuvant Therapy for Ulcerating Breast Cancer?. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 4527.	2.5	8
13	Elliptical plasma-filled waveguide as a new standard short-period undulator. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 1050-1058.	2.4	0
14	Charge migration in caffeine: A real-time time-dependent density functional theory study. <i>International Journal of Quantum Chemistry</i> , 2021, 121, e26754.	2.0	4
15	Attosecond charge migration following oxygen K-shell ionization in DNA bases and base pairs. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23005-23013.	2.8	6
16	The evaluation of efficacy of atmospheric pressure plasma in diabetic ulcers healing: A randomized clinical trial. <i>Dermatologic Therapy</i> , 2021, 34, e15169.	1.7	6
17	In vivo study of the effects of a portable cold plasma device and vitamin C for skin rejuvenation. <i>Scientific Reports</i> , 2021, 11, 21915.	3.3	10
18	Numerical modeling of plasma gasification process of polychlorinated biphenyl wastes. <i>Energy Reports</i> , 2021, 7, 270-285.	5.1	10

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19	Modifications of protein-based films using cold plasma. <i>International Journal of Biological Macromolecules</i> , 2020, 142, 769-777.	7.5	65
20	Anisotropic infrared light emission from quasi-1D layered $\text{TiS}_3$ . <i>2D Materials</i> , 2020, 7, 015022.	4.4	33
21	Direct plasma treatment approach based on non-thermal gliding arc for surface modification of biaxially-oriented polypropylene with post-exposure hydrophilicity improvement and minus aging effects. <i>Applied Surface Science</i> , 2020, 509, 144815.	6.1	36
22	Direct cold atmospheric plasma and plasma-activated medium effects on breast and cervix cancer cells. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900241.	3.0	18
23	Plasma pyrolysis feasibility study of spent petrochemical catalyst wastes to hydrogen production. <i>Journal of Material Cycles and Waste Management</i> , 2020, 22, 2059-2070.	3.0	9
24	L $\infty$ noise-driven escape from arctangent potential wells. <i>Chaos</i> , 2020, 30, 123103.	2.5	11
25	First passage time moments of asymmetric L $\infty$ flights. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 275002.	2.1	15
26	Surface modification of PLA scaffold using radio frequency (RF) nitrogen plasma in tissue engineering application. <i>Surface Topography: Metrology and Properties</i> , 2020, 8, 015012.	1.6	12
27	Deposition of high transparent and hard optical coating by tetraethylorthosilicate plasma polymerization. <i>Thin Solid Films</i> , 2020, 698, 137857.	1.8	7
28	Defect engineering in few-layer black phosphorus for tunable and photostable infrared emission. <i>Optical Materials Express</i> , 2020, 10, 1488.	3.0	6
29	First-passage properties of asymmetric L $\infty$ flights. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 454004.	2.1	30
30	Effect of oxidative stress on cystine transportation by $\text{xCa}^{3/4}$ antiporter. <i>Archives of Biochemistry and Biophysics</i> , 2019, 674, 108114.	3.0	7
31	Surface characterization of an organosilane-grafted moisture-crosslinked polyethylene compound treated by air atmospheric pressure non-equilibrium gliding arc plasma. <i>Applied Surface Science</i> , 2019, 490, 436-450.	6.1	22
32	Comparison study of root canal disinfection by cold plasma jet and photodynamic therapy. <i>Photodiagnosis and Photodynamic Therapy</i> , 2019, 26, 327-333.	2.6	25
33	Decomposition of high concentration benzene (produced in paper and painting industries) and its byproducts, methane and carbon dioxide, using plate gliding arc. <i>Journal of Environmental Health Science &amp; Engineering</i> , 2019, 17, 549-560.	3.0	10
34	Transport of cystine across $\text{xCa}^{\sim}$ antiporter. <i>Archives of Biochemistry and Biophysics</i> , 2019, 664, 117-126.	3.0	10
35	Degradation of 4-chlorophenol in aqueous solution by dielectric barrier discharge system: effect of fed gases. <i>Journal of Environmental Health Science &amp; Engineering</i> , 2019, 17, 1185-1194.	3.0	5
36	Investigation of electron spin dynamic in the bichromatic Kapitza-Dirac effect via frequency ratio and amplitude of laser beams. <i>Physical Review A</i> , 2019, 100, .	2.5	4

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37	Improving the oxygen barrier properties of PET polymer by radio frequency plasma-polymerized SiOxNy thin film. <i>Surface and Coatings Technology</i> , 2019, 358, 91-97.	4.8	18
38	Electrodynamics of Conducting Dispersive Media. Springer Series on Atomic, Optical, and Plasma Physics, 2019, , .	0.2	3
39	Cold low pressure O <sub>2</sub> plasma treatment of <i>Crocus sativus</i> : An efficient way to eliminate toxicogenic fungi with minor effect on molecular and cellular properties of saffron. <i>Food Chemistry</i> , 2018, 257, 310-315.	8.2	32
40	Oblique propagation of solitary waves in weakly relativistic magnetized plasma with kappa distributed electrons in the presence of negative ions. <i>Physics of Plasmas</i> , 2018, 25, 032102.	1.9	3
41	Investigation of optical properties of an overdense magnetized plasma lens in the interaction with high-intensity Gaussian laser pulses. <i>Applied Physics B: Lasers and Optics</i> , 2018, 124, 1.	2.2	1
42	Physico-chemical induced modification of seed germination and early development in artichoke ( <i>Cynara scolymus</i> L.) using low energy plasma technology. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	44
43	The Processing of Pyrolysis Fuel Oil by Dielectric Barrier Discharge Plasma Torch. <i>Plasma Chemistry and Plasma Processing</i> , 2018, 38, 365-378.	2.4	13
44	Anisotropic metamaterial waveguide driven by a cold and relativistic electron beam. <i>Physics of Plasmas</i> , 2018, 25, 033110.	1.9	1
45	Four-photon Kapitza-Dirac effect as an electron spin filter. <i>Physical Review A</i> , 2018, 98, .	2.5	6
46	A study of the effect of gliding arc non-thermal plasma on almonds decontamination. <i>AIP Advances</i> , 2018, 8, .	1.3	19
47	Electron self-injection in the donut bubble wakefield. <i>Physics of Plasmas</i> , 2018, 25, 053103.	1.9	0
48	Trapping and acceleration of hollow electron and positron bunch in a quasi-linear donut wakefield. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	12
49	Radiation of charge bunches revolving around a metamaterial sphere. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	1
50	Investigating higher order modes effects on thermionic RF gun transverse emittance. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2017, 846, 64-74.	1.6	1
51	Study on Physio-chemical Properties of plasma polymerization in C <sub>2</sub> H <sub>2</sub> /N <sub>2</sub> plasma and Their Impact on COL X. <i>Scientific Reports</i> , 2017, 7, 9149.	3.3	9
52	Application of cold plasma to develop carboxymethyl cellulose-coated polypropylene films containing essential oil. <i>Carbohydrate Polymers</i> , 2017, 176, 1-10.	10.2	79
53	Development and characterisation of chitosan or alginate-coated low density polyethylene films containing <i>Satureja hortensis</i> extract. <i>International Journal of Biological Macromolecules</i> , 2017, 105, 121-130.	7.5	45
54	Study of scattering cross section of a plasma column using Green's function volume integral equation method. <i>Physics of Plasmas</i> , 2017, 24, 053301.	1.9	3

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55	Analysis of radial and longitudinal field of plasma wakefield generated by a Laguerre-Gauss laser pulse. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	13
56	Cylindrical dielectric barrier discharge plasma catalytic effect on chemical methods of silver nano-particle production. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	5
57	Determination of the optimum conditions for lung cancer cells treatment using cold atmospheric plasma. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	15
58	Change of radiation pattern in a plasma monopole antenna. <i>Waves in Random and Complex Media</i> , 2016, 26, 328-338.	2.7	6
59	Atmospheric-pressure DBD plasma-assisted surface modification of polymethyl methacrylate: A study on cell growth/proliferation and antibacterial properties. <i>Applied Surface Science</i> , 2016, 360, 641-651.	6.1	49
60	Amplification of filamentation instability by negative hydrogen ions stream driven by a magnetized counterstreaming "H <sup>+</sup> " plasmas. <i>Laser and Particle Beams</i> , 2015, 33, 481-487.	1.0	2
61	Atmospheric-pressure plasma jet characterization and applications on melanoma cancer treatment (B/16-F10). <i>Physics of Plasmas</i> , 2015, 22, .	1.9	40
62	Conversion of Pyrolysis Fuel Oils by a Dielectric Barrier Discharge Reactor in the Presence of Methane and Ethane. <i>Chemical Engineering and Technology</i> , 2015, 38, 1452-1459.	1.5	8
63	Investigating effects of atmospheric-pressure plasma on the process of wound healing. <i>Biointerphases</i> , 2015, 10, 029504.	1.6	35
64	On the design and characterization of a new cold atmospheric pressure plasma jet and its applications on cancer cells treatment. <i>Biointerphases</i> , 2015, 10, 029510.	1.6	19
65	Dielectric barrier discharge plasma torch treatment of pyrolysis fuel oil in presence of methane and ethane. <i>Journal of Electrostatics</i> , 2015, 76, 178-187.	1.9	14
66	Effects of hydrogen flux and pressure on the structural properties of PECVD-synthesized carbon thin films. , 2015, , .		0
67	Characterization of fluorinated silica thin films with ultra-low refractive index deposited at low temperature. <i>Thin Solid Films</i> , 2015, 577, 67-73.	1.8	13
68	A novel method for decoking of Pt-Sn/Al <sub>2</sub> O <sub>3</sub> in the naphtha reforming process using RF and pin-to-plate DBD plasma systems. <i>Applied Catalysis A: General</i> , 2015, 493, 8-16.	4.3	24
69	Effect of microwave plasma torch on the pyrolysis fuel oil in the presence of methane and ethane to increase hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 18812-18819.	7.1	17
70	Investigation of antibacterial and wettability behaviours of plasma-modified PMMA films for application in ophthalmology. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 085401.	2.8	75
71	Study on the Feasibility of Plasma (DBD Reactor) Cracking of Different Hydrocarbons ( $\text{C}_n\text{H}_{2n+2}$ ) on Plasma Science. 2014, 42, 2213-2220.	1.3	23
72	The effects of microwave plasma torch on the cracking of Pyrolysis Fuel Oil feedstock. <i>Chemical Engineering Journal</i> , 2014, 237, 169-175.	12.7	25

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73	The effect of TEOS plasma parameters on the silicon dioxide deposition mechanisms. Journal of Non-Crystalline Solids, 2013, 368, 86-92.	3.1	47
74	Characteristics of ultra low-k nanoporous and fluorinated silica based films prepared by plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2013, 114, .	2.5	10
75	Acceleration and dynamics of an electron in the degenerate and magnetized plasma elliptical waveguide. Physics of Plasmas, 2013, 20, .	1.9	4
76	Acceleration of an Electron Inside the Circular and Elliptical Waveguides by Microwave Radiation. IEEE Transactions on Plasma Science, 2013, 41, 62-69.	1.3	13
77	Reflection and Absorption of Electromagnetic Wave Propagation in an Inhomogeneous Dissipative Magnetized Plasma Slab. IEEE Transactions on Plasma Science, 2013, 41, 290-295.	1.3	37
78	Area coverage of radial $L^{\infty}$ flights with periodic boundary conditions. Physical Review E, 2013, 87, 042136.	2.1	24
79	The study of the wake field effects on the self-focusing and the compression of the laser pulse in plasma at the relativistic regime by Lagrangian method. Waves in Random and Complex Media, 2013, 23, 396-410.	2.7	1
80	Publisher's Note: Area coverage of radial $L^{\infty}$ flights with periodic boundary conditions [Phys. Rev. E87, 042136 (2013)]. Physical Review E, 2013, 87, .	2.1	3
81	The dispersion relation and excitation of transverse magnetic mode electromagnetic waves in rippled-wall waveguide with a plasma rod and an annular dielectric. Physics of Plasmas, 2012, 19, 013109.	1.9	4
82	Analysis of the reflection of electromagnetic waves in an unsteady moving magnetized plasma slab. Waves in Random and Complex Media, 2012, 22, 571-588.	2.7	2
83	The Rod Degenerate Plasma-Rippled-Wall Waveguide and Its Excitation by Relativistic Electron Beam Injection. IEEE Transactions on Plasma Science, 2012, 40, 3029-3036.	1.3	10
84	Bohm's criterion in a collisional magnetized plasma with thermal ions. Physics of Plasmas, 2012, 19, .	1.9	24
85	Behavior of the floating potential in an electronegative sheath as a function of electronegativity and negative ion temperature. Journal of Plasma Physics, 2011, 77, 307-314.	2.1	4
86	Effect of Magnetic Field Curvature on Penetration of the Magnetic Field into the Plasma. Plasma and Fusion Research, 2011, 6, 1401020-1401020.	0.7	0
87	Investigation of Cracking by Cylindrical Dielectric Barrier Discharge Reactor on the n-Hexadecane as a Model Compound. IEEE Transactions on Plasma Science, 2011, 39, 1807-1813.	1.3	29
88	Relativistic effects in the interaction of high intensity ultra-short laser pulse with collisional underdense plasma. Physics of Plasmas, 2011, 18, .	1.9	25
89	The reflection of an electromagnetic wave from the self-produced plasma. Physics of Plasmas, 2010, 17, 012104.	1.9	11
90	The single-wall carbon nanotube waveguides and excitation of their $\text{TE}_{10}$ plasmons by an electron beam. Physics of Plasmas, 2009, 16, .	1.9	15

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91	Study of geometrical effects on the characteristics of metallic double-walled carbon nanotube waveguides through quantum hydrodynamics. <i>Physics of Plasmas</i> , 2009, 16, 063501.	1.9	4
92	Electrostatic instabilities in circularly polarized microwave produced magnetized plasmas. <i>Physics of Plasmas</i> , 2009, 16, 123505.	1.9	0
93	Description of an electron transport in plasma by fractal distribution. , 2009, , .		0
94	Dependency of the electronegative sheath structure on the negative ion density and temperature. , 2009, , .		0
95	Response to "Comment on 'The single-wall carbon nanotube waveguides and excitation of their $f_+$ plasmons by an electron beam'" [Phys. Plasmas 16, 054705 (2009)]. <i>Physics of Plasmas</i> , 2009, 16, 054706.	1.9	1
96	Response to "Comment on 'Study of geometrical effects on the characteristics of metallic double-walled carbon nanotube waveguides through quantum hydrodynamics'" [Phys. Plasmas 16, 084703 (2009)]. <i>Physics of Plasmas</i> , 2009, 16, 084704.	1.9	0
97	Magnetic field effect on self focusing of high intensity gaussian laser beam in underdense plasma. , 2009, , .		0
98	Magnetized plasma sheath with two species of positive ions. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	29
99	Numerical investigation of the magnetized plasma sheath characteristics in the presence of negative ions. <i>Physics of Plasmas</i> , 2008, 15, 123501.	1.9	25
100	The extraordinary wave excitation in microwave gas breakdown in the adiabatic approximation. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	0
101	Excitation of surface elasticity waves in piezoelectric media by ion beams—. <i>Waves in Random and Complex Media</i> , 2008, 18, 623-626.	2.7	2
102	Effects of fast monoenergetic electrons on the ion dynamics near the cathode in a pulsed direct current plasma sheath. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	9
103	The effect of transition layer inhomogeneity on the stability of compressible MHD fluids. <i>Journal of Plasma Physics</i> , 2008, 74, 827-837.	2.1	1
104	Nanosized Diamond Deposition via Plasma Medium. <i>Plasma Processes and Polymers</i> , 2007, 4, S273-S277.	3.0	2
105	The Effect of Two Surface Treatments on the Tribological Behavior of Gamma-Based Titanium Aluminides. <i>Plasma Processes and Polymers</i> , 2007, 4, S761-S765.	3.0	1
106	Surface Binding Stability of Metallic Nanoparticles. <i>Plasma Processes and Polymers</i> , 2007, 4, S891-S896.	3.0	2
107	Quasi elasto-electromagnetic surface waves on a piezo-plasma-like layer. <i>Waves in Random and Complex Media</i> , 2006, 16, 87-95.	2.7	4
108	Low-frequency instability of circularly polarized microwave-pulsed-field-produced plasmas. <i>Physics of Plasmas</i> , 2004, 11, 5162-5166.	1.9	12

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109	Relativistic effects on the Weibel instability of circularly polarized microwave produced plasmas. <i>Physics of Plasmas</i> , 2004, 11, 5398-5401.	1.9	21
110	Anti-screening in magnetically quantized plasmas. <i>Pramana - Journal of Physics</i> , 2004, 62, 69-76.	1.8	4
111	Reflection of an electromagnetic pulse incident on a magnetoactive nonlinear medium. <i>Journal of Plasma Physics</i> , 2002, 67, 73-78.	2.1	0
112	Thermal motion effect on the filamentation of a strongly collisional current-driven plasma. <i>Physics of Plasmas</i> , 2001, 8, 788-790.	1.9	21
113	Low-frequency waves and relaxation processes in semibounded and bounded plasma-like media. <i>Physics of Plasmas</i> , 2000, 7, 3867.	1.9	21
114	Dielectric Cherenkov maser with a magnetically confined plasma column in a dielectric rod slow-wave waveguide. , 0, , .		0