Shi Lei

List of Publications by Year
in descending order

63 papers	877 citations	471509 17 h-index	501196 28 g-index
63 all docs	63 docs citations	63 times ranked	459 citing authors

#	Article	IF	Citations
1	Effects of Reentry Plasma Sheath on the Polarization Properties of Obliquely Incident EM Waves. IEEE Transactions on Plasma Science, 2014, 42, 3365-3372.	1.3	98
2	CHARACTERISTIC OF PLASMA SHEATH CHANNEL AND ITS EFFECT ON COMMUNICATION. Progress in Electromagnetics Research, 2012, 123, 321-336.	4.4	74
3	A Novel Compact Wideband Patch Antenna for GNSS Application. IEEE Transactions on Antennas and Propagation, 2017, 65, 7334-7339.	5.1	50
4	Re-entry communication through a plasma sheath using standing wave detection and adaptive data rate control. Journal of Applied Physics, 2016, 119, .	2.5	47
5	Adaptive Multistate Markov Channel Modeling Method for Reentry Dynamic Plasma Sheaths. IEEE Transactions on Plasma Science, 2016, 44, 1083-1093.	1.3	46
6	Effects of Pressure Variation on Polarization Properties of Obliquely Incident RF Waves in Re-Entry Plasma Sheath. IEEE Transactions on Plasma Science, 2015, 43, 3147-3154.	1.3	40
7	Telemetry Channel Capacity Assessment for Reentry Vehicles in Plasma Sheath Environment. Plasma Science and Technology, 2015, 17, 1006-1012.	1.5	31
8	Evaluations of Plasma Stealth Effectiveness Based on the Probability of Radar Detection. IEEE Transactions on Plasma Science, 2017, 45, 938-944.	1.3	29
9	A layered fluctuation model of electron density in plasma sheath and instability effect on electromagnetic wave at Ka band. Aerospace Science and Technology, 2018, 78, 480-487.	4.8	29
10	A Multiscale Model of Reentry Plasma Sheath and Its Nonstationary Effects on Electromagnetic Wave Propagation. IEEE Transactions on Plasma Science, 2017, 45, 2227-2234.	1.3	25
11	A Novel Plasma Jamming Technology Based on the Resonance Absorption Effect. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1056-1059.	4.0	25
12	Plasma sheath: An equivalent nonlinear mirror between electron density and transmitted electromagnetic signal. Physics of Plasmas, 2017, 24, .	1.9	24
13	A Geometric-Stochastic Integrated Channel Model for Hypersonic Vehicle: A Physical Perspective. IEEE Transactions on Vehicular Technology, 2019, 68, 4328-4341.	6.3	23
14	Integration of Circularly Polarized Microstrip Slot Array Antenna With Amorphous Silicon Solar Cells. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2320-2323.	4.0	22
15	A 3-D Total-Field/Scattered-Field Plane-Wave Source for the FDTD Analysis of Reentry Plasma Sheath. IEEE Transactions on Antennas and Propagation, 2020, 68, 6214-6225.	5.1	21
16	Propagation of electromagnetic signals in the time-varying plasma. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 085201.	0.5	21
17	Influence of Time-Varying Plasma Sheath on the Lock Condition of Phase-Locked Loop for TT&C Carrier Tracking System. IEEE Transactions on Plasma Science, 2017, 45, 636-643.	1.3	17
18	Method of Detecting a Target Enveloped by a Plasma Sheath Based on Doppler Frequency Compensation. IEEE Transactions on Plasma Science, 2020, 48, 4103-4111.	1.3	17

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19	Disruption of follistatin by RNAi increases apoptosis, arrests S-phase of cell cycle and decreases estradiol production in bovine granulosa cells. Animal Reproduction Science, 2015, 155, 80-88.	1.5	16
20	Establishment of a Wideband Radar Scattering Center Model of a Plasma Sheath. IEEE Access, 2019, 7, 140402-140410.	4.2	13
21	Bit Error Rate and Channel Capacity Performance of Telemetry Modulation Methods Under Typical Reentry Plasma Sheath Channel. IEEE Transactions on Plasma Science, 2019, 47, 4950-4960.	1.3	13
22	Role of Î±-Dicarbonyl Compounds in the Inhibition Effect of Reducing Sugars on the Formation of 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine. Journal of Agricultural and Food Chemistry, 2017, 65, 10084-10092.	5.2	12
23	Instantaneous polarization statistic property of EM waves incident on time-varying reentry plasma. Physics of Plasmas, 2018, 25, 062101.	1.9	11
24	Passive Radar Jamming: A Novel Method Using Time-Varying Plasma. IEEE Access, 2019, 7, 120082-120088.	4.2	11
25	2D simulation of the electromagnetic wave across the non-uniform reentry plasma sheath with COMSOL. AIP Advances, 2019, 9, .	1.3	10
26	Effective Transmission Method With Adaptive Nonstationary Channel Equalization for Hypersonic Reentry Communications. IEEE Transactions on Plasma Science, 2019, 47, 2590-2601.	1.3	10
27	Effects of Plasma Sheath on the Signal Detection of Narrowband Receiver. IEEE Transactions on Plasma Science, 2019, 47, 251-258.	1.3	10
28	Experimental Investigation on Electromagnetic Waves Transmitting Through Exhaust Plume: From Propagation to Channel Characteristics. IEEE Transactions on Antennas and Propagation, 2020, 68, 8021-8032.	5.1	9
29	Influences of Turbulent Reentry Plasma Sheath on Wave Scattering and Propagation. Plasma Science and Technology, 2016, 18, 617-626.	1.5	8
30	Effects of a reentry plasma sheath on the beam pointing properties of an array antenna. AIP Advances, 2018, 8, .	1.3	8
31	Lock threshold deterioration induced by antenna vibration and signal coupling effects in hypersonic vehicle carrier tracking system of Ka band. Chinese Journal of Aeronautics, 2018, 31, 776-781.	5.3	7
32	Transmission Channel Characteristics of Relay Dual-Polarization MIMO System for Hypersonic Vehicles Under Plasma Sheath. IEEE Transactions on Plasma Science, 2018, 46, 917-927.	1.3	7
33	Electromagnetic coupling effect in the complex integrated channel of hypersonic vehicles and experimental verification. Physics of Plasmas, 2019, 26, .	1.9	7
34	The Novel Mobility Models Based on Spiral Line for Aerial Backbone Networks. IEEE Access, 2020, 8, 11297-11314.	4.2	7
35	A Hyperspectral Anomaly Detection Algorithm Using Sub-Features Grouping and Binary Accumulation. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	7
36	Intra-pulse modulation of the linear frequency modulated pulse caused by time-varying plasma. AIP Advances, 2019, 9, .	1.3	6

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37	Effect of pH on Nitrite Reduction of Pickled Chinese Cabbage. International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering, 2010, , .	0.0	5
38	Modulation, Detection, and Performance for Noncoherent Massive SIMO Systems for Hypersonic Vehicle Downlink Integrated Channel. IEEE Transactions on Vehicular Technology, 2021, 70, 6763-6777.	6.3	5
39	Unconventionally Designed Tracking Loop Adaptable to Plasma Sheath Channel for Hypersonic Vehicles. Sensors, 2021, 21, 21.	3.8	5
40	New Nonlinear Second-Order Phase-Locked Loop with Adaptive Bandwidth Regulation. Electronics (Switzerland), 2018, 7, 346.	3.1	4
41	Energy dissipation and power deposition of electromagnetic waves in the plasma sheath. Plasma Science and Technology, 2021, 23, 015404.	1.5	4
42	Improved Type3-PLL to Mitigate Parasitic Amplitude Modulation Effects Caused by Time-Varying Plasma Sheath. IEEE Transactions on Plasma Science, 2017, 45, 3188-3194.	1.3	3
43	An integrative time-varying frequency detection and channel sounding method for dynamic plasma sheath. AIP Advances, 2018, 8, .	1.3	3
44	Effect of plasma on the intrapulse distortion of linear frequency modulated pulse. Physics of Plasmas, 2019, 26, .	1.9	3
45	A new nonlinear Type3-PLL with noise rejection and fast locking performance in tracking telemetry and command systems. Acta Astronautica, 2019, 157, 397-403.	3.2	3
46	Fast Doppler shift acquisition method for hypersonic vehicle communications. IET Communications, 2020, 14, 474-479.	2.2	3
47	The Realistic 3D Group Mobility Model Based on Spiral Line for Aerial Backbone Network. IEEE Transactions on Vehicular Technology, 2021, 70, 3817-3830.	6.3	3
48	Experimental study on correlation between amplitude and phase of electromagnetic wave affected by time-varying plasma by amplitude-modulated radio frequency plasma generator. Physics of Plasmas, 2021, 28, .	1.9	3
49	Analysis of Hypersonic Platform-Borne SAR Imaging: A Physical Perspective. Remote Sensing, 2021, 13, 4943.	4.0	3
50	Numerical Analysis of Aerodynamic Noise of a High-Speed Pantograph. , 2013, , .		2
51	A New Statistical WRELAX Algorithm Under Nakagami Multipath Channel Based on Delay Power Spectrum Characteristic. Wireless Personal Communications, 2015, 82, 1483-1495.	2.7	2
52	Fast Telemetry and Communication Scheme Based on Doppler Diversity Reception under Large Dynamic Doppler for Hypersonic Vehicles. Electronics (Switzerland), 2019, 8, 781.	3.1	2
53	The Authentic 3D Mobility Model Based on Spiral Line for Aerial Backbone Network. IEEE Access, 2020, 8, 125592-125609.	4.2	2
54	Binary Orthogonal-Division Dual-Carrier Modulation for Hypersonic Vehicle Downlink Massive 2 Ã—MMIMO Systems With Noncoherent ML Detection. IEEE Transactions on Plasma Science, 2020, 48, 3573-3581.	1.3	2

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55	Adaptive protograph-based BICM-ID relying on the RJ-MCMC algorithm: a reliable and efficient transmission solution for plasma sheath channels. Plasma Science and Technology, 2022, 24, 045001.	1.5	2
56	Research on Preâ€Cenozoic Residual Basin Structure and Basement Property of the Huanghua Depression. Chinese Journal of Geophysics, 2010, 53, 838-848.	0.2	1
57	Research and Application of Threeâ€Dimensional Density Interface Inversion. Chinese Journal of Geophysics, 2014, 57, 95-102.	0.2	1
58	Effects of Plasma Sheath on Parameter Estimations of Linear Frequency Modulation Pulse Signal. IEEE Transactions on Plasma Science, 2019, 47, 4934-4943.	1.3	1
59	Performance Analysis of Typical Telemetry Modulation Methods Under Downlink Integrated Channel of Hypersonic Vehicles. IEEE Transactions on Plasma Science, 2021, 49, 3524-3531.	1.3	1
60	Research on Anomaly Suppression Method of Plasma-Sheath-Covered Reentry Target. IEEE Transactions on Plasma Science, 2022, 50, 1765-1774.	1.3	1
61	Multiscale-Band K-Distribution Model for Molecules in High-Temperature Gases. Journal of Spectroscopy, 2022, 2022, 1-9.	1.3	1
62	Spatial Selectivity of Plasma Sheath Channel at Millimeter Wave Band for Hypersonic Vehicle. IEEE Transactions on Plasma Science, 2022, 50, 2430-2438.	1.3	1
63	An Adaptive BICM-ID System Based on Binary Orthogonal-Division Dual-Carrier Modulation for the Hypersonic Vehicle Massive 2 Ã—MMIMO Telemetry Channel. IEEE Transactions on Plasma Science, 2022, 50, 1754-1764.	1.3	0