

# Mikhail Tokar

## List of Publications by Year in descending order

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84  
papers

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citations

516710

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454955

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g-index

84  
all docs

84  
docs citations

84  
times ranked

725  
citing authors

#	ARTICLE	IF	CITATIONS
1	An approach to implement a heat flux limit in a model for fusion relevant plasmas. Physics of Plasmas, 2022, 29, .	1.9	1
2	Modeling of the resonant magnetic perturbation effect on detachment in the Large Helical Device. Plasma Physics and Controlled Fusion, 2020, 62, 085011.	2.1	1
3	A mechanism of ion temperature peaking by impurity pellet injection in a heliotron plasma. Plasma Physics and Controlled Fusion, 2020, 62, 075008.	2.1	5
4	Time-dependent plasma transport simulation for the study of edge impurity radiation dynamics with magnetic island in large helical device. Contributions To Plasma Physics, 2020, 60, e201900138.	1.1	5
5	An assessment of the first wall and limiter erosion during limiter discharge stages in DEMO. Nuclear Fusion, 2019, 59, 076002.	3.5	2
6	An assessment for the erosion rate of DEMO first wall. Nuclear Fusion, 2018, 58, 016016.	3.5	14
7	Accelerated procedure to solve kinetic equation for neutral atoms in a hot plasma. International Journal of Modeling, Simulation, and Scientific Computing, 2018, 09, 1850048.	1.4	1
8	Assessment for erosion of and impurity deposition on first mirrors in a fusion reactor. Nuclear Fusion, 2018, 58, 096007.	3.5	5
9	Modeling of localized impulsive injection of neutrals and plasma response. Plasma Physics and Controlled Fusion, 2017, 59, 055005.	2.1	4
10	Interplay of light and heavy impurities in a fusion device. Plasma Physics and Controlled Fusion, 2017, 59, 025001.	2.1	1
11	Accelerated procedure to solve kinetic equation for neutral atoms in a hot plasma. Journal of Physics: Conference Series, 2017, 936, 012009.	0.4	1
12	Time resolved imaging of laser induced ablation spectroscopy (LIAS) in TEXTOR and comparison with modeling. Physica Scripta, 2016, T167, 014034.	2.5	13
13	Scrape-off layer modeling with kinetic or diffusion description of charge-exchange atoms. Physics of Plasmas, 2016, 23, .	1.9	9
14	Approaches to modeling of plasmas containing impurity at arbitrary concentration. Plasma Physics and Controlled Fusion, 2016, 58, 025015.	2.1	1
15	Modelling of Global Heat Transfer by Local Cooling in Fusion Plasmas. , 2015, , .		0
16	"Shell" approach to modeling of impurity spreading from localized sources in plasma. International Journal of Modeling, Simulation, and Scientific Computing, 2014, 05, 1441005.	1.4	2
17	A fast model for spreading of neutral particles injected locally into hot plasma. Physics of Plasmas, 2014, 21, 082517.	1.9	5
18	Quasi-three-dimensional modelling of penetration and influence of impurities in plasma. Plasma Physics and Controlled Fusion, 2014, 56, 124006.	2.1	2

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19	"Shell" approach to modeling of impurity spreading from localized sources in plasma. Journal of Physics: Conference Series, 2014, 490, 012210.	0.4	0
20	A simplified, numerically verified model for the global plasma reaction on a local cooling. Physics of Plasmas, 2013, 20, 102502.	1.9	6
21	Modelling of the plasma global response to a local cooling. Plasma Physics and Controlled Fusion, 2013, 55, 045013.	2.1	8
22	Numerical modeling of the plasma response to local cooling. Journal of Physics: Conference Series, 2013, 410, 012068.	0.4	0
23	Modeling of non-stationary local response on impurity penetration in plasma. Physics of Plasmas, 2012, 19, 042502.	1.9	9
24	Modeling of energy confinement improvement in high power JET discharges with neon seeding. Plasma Physics and Controlled Fusion, 2012, 54, 015004.	2.1	3
25	Time-dependent shell model for spreading of impurities locally injected into hot plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 025003.	2.1	13
26	Numerical modeling of transport barrier formation. , 2012, , .		1
27	Proposed mechanism for the formation of cold dense structures in plasmas. Physical Review E, 2012, 85, 046412.	2.1	2
28	Modification of local plasma parameters by impurity injection. Plasma Physics and Controlled Fusion, 2011, 53, 065015.	2.1	13
29	Numerical Realization of a Shell Model for Impurity Spreading in Plasmas. , 2011, , .		4
30	Numerical solution of momentum balance equations for plasmas with two ion species. Journal of Computational Physics, 2011, 230, 2696-2705.	3.8	4
31	Numerical modeling of transport barrier formation. Journal of Computational Physics, 2010, 229, 2625-2633.	3.8	11
32	Modelling of local carbon deposition from methane and ethene injection through graphite and tungsten test limiters in TEXTOR. Plasma Physics and Controlled Fusion, 2010, 52, 045005.	2.1	7
33	Modeling of impurity effect on drift instabilities in plasmas with many ion species. Physics of Plasmas, 2010, 17, 012101.	1.9	16
34	Modelling of plasma behaviour in the vicinity of intensive impurity sources. Plasma Physics and Controlled Fusion, 2010, 52, 075003.	2.1	9
35	On Greenwald density limit in H-mode. Physics of Plasmas, 2009, 16, .	1.9	7
36	Effect of magnetic geometry on transport of neutral particles locally entering confined plasma volume. Physics of Plasmas, 2009, 16, 094506.	1.9	3

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37	Free energy minimization approach to penetration of resonant magnetic perturbations in tokamaks. Physics of Plasmas, 2009, 16, 122303.	1.9	2
38	Effect of poloidal inhomogeneity in plasma parameters on edge anomalous transport. Physics of Plasmas, 2009, 16, 044508.	1.9	3
39	Development of the Detachment under the Influence of the Supersonic Flow in the Divertor Region. Contributions To Plasma Physics, 2008, 48, 164-168.	1.1	3
40	Particle transfer in edge transport barrier with stochastic magnetic field. Physics of Plasmas, 2008, 15, 072515.	1.9	37
41	â€˜Phaseâ€™ model for structures generated by thermal instability in laboratory fusion plasma and ISM. Plasma Physics and Controlled Fusion, 2008, 50, 074002.	2.1	0
42	Interaction of plasma rotation and resonant magnetic perturbation fields in tokamaks. Nuclear Fusion, 2008, 48, 024008.	3.5	5
43	Effective heat conduction in a configuration with nonoverlapped magnetic islands. Physics of Plasmas, 2008, 15, 034503.	1.9	1
44	Mechanisms of Edge-Localized-Mode Mitigation by External-Magnetic-Field Perturbations. Physical Review Letters, 2007, 98, 095001.	7.8	46
45	Elucidation of the Heat-Flux Limit from Magnetic-Island Heating. Physical Review Letters, 2007, 99, 225001.	7.8	11
46	A model for particle and heat losses by type I edge localized modes. Plasma Physics and Controlled Fusion, 2007, 49, 395-403.	2.1	13
47	Numerical solution of transport equations for plasmas with transport barriers. Computer Physics Communications, 2006, 175, 30-35.	7.5	8
48	Numerical solution of continuity equation with a flux non-linearly depending on the density gradient. Journal of Computational Physics, 2006, 220, 175-183.	3.8	2
49	RITM-Code Modelling of Plasmas with Edge Transport Barrier. Contributions To Plasma Physics, 2006, 46, 685-691.	1.1	1
50	Modelling and Comparison with Experiment of Radial Profiles in a Tokamak with Magnetic Field Stochastization. Contributions To Plasma Physics, 2006, 46, 704-710.	1.1	1
51	Influence of the Wall Characteristics on the Development of MARFE in Tokamaks. Contributions To Plasma Physics, 2006, 46, 744-749.	1.1	1
52	Comparison of impurity transport model with measurements of He-like spectra of argon at the tokamak TEXTOR. Plasma Physics and Controlled Fusion, 2006, 48, 1633-1646.	2.1	16
53	On the difference of H-mode power threshold in divertor and limiter tokamaks. Plasma Physics and Controlled Fusion, 2006, 48, A309-A317.	2.1	6
54	Influence of the boundary conditions on the H-mode power threshold. Physics of Plasmas, 2006, 13, 032504.	1.9	7

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55	Role of thermal instabilities and anomalous transport in threshold of detachment and multifaceted asymmetric radiation from the edge (MARFE). <i>Physics of Plasmas</i> , 2005, 12, 052510.	1.9	15
56	Self-Sustained Oscillations in a Plasma-Wall System with Strongly Inhomogeneous Diffusion of Charged Particles. <i>Physical Review Letters</i> , 2005, 95, 265002.	7.8	1
57	Influence of the Dynamic Ergodic Divertor on the Density Limit in TEXTOR. <i>Physical Review Letters</i> , 2005, 94, 105003.	7.8	24
58	Temperature of ion cyclotron heated impurity ions in fusion plasmas. <i>Physics of Plasmas</i> , 2005, 12, 072521.	1.9	2
59	Nature of the Isotope Effect on Transport in Tokamaks. <i>Physical Review Letters</i> , 2004, 92, 215001.	7.8	24
60	Tokar Replies. <i>Physical Review Letters</i> , 2004, 93, .	7.8	2
61	Improved two-point model for limiter scrape-off layer. <i>Physics of Plasmas</i> , 2004, 11, 4610-4615.	1.9	16
62	Theoretical Study of the Effect of the Dynamic Ergodic Divertor on MARFE Onset. <i>Contributions To Plasma Physics</i> , 2004, 44, 176-181.	1.1	3
63	Synergy of Anomalous Transport and Radiation in the Density Limit. <i>Physical Review Letters</i> , 2003, 91, 095001.	7.8	32
64	The role of plasma-wall interactions in thermal instabilities at the tokamak edge. <i>Physics of Plasmas</i> , 2003, 10, 4378-4386.	1.9	30
65	Impact of hydrogen fuelling on confinement properties in radiative improved mode. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, 1501-1510.	2.1	3
66	Evidence for reduction of the toroidal ITG instability in the transition from saturated to improved Ohmic confinement in the tokamak TEXTOR. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, 199-207.	2.1	5
67	Mechanism of central temperature peaking in impurity seeded plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, 1323-1332.	2.1	5
68	Predictive modelling of impurity seeded plasmas in JET. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, 1903-1910.	2.1	20
69	Consideration of multifaceted asymmetric radiation from the edge (MARFE) as a dissipative structure. <i>Physics of Plasmas</i> , 2002, 9, 1646-1653.	1.9	8
70	On the importance of parallel heat conduction and magnetic geometry for multifaceted radiation from the edge (MARFE). <i>Physics of Plasmas</i> , 2001, 8, 2866-2871.	1.9	12
71	Modelling of confinement degradation in the radiative improved mode caused by a strong gas puff. <i>Plasma Physics and Controlled Fusion</i> , 2001, 43, 945-957.	2.1	18
72	On threshold of radial detachment in tokamaks. <i>Physics of Plasmas</i> , 2000, 7, 2432-2438.	1.9	15

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73	Model for the Transition to the Radiatively Improved Mode in a Tokamak. <i>Physical Review Letters</i> , 2000, 84, 895-898.	7.8	89
74	A possible nature of "breathing" plasmas. <i>Physics of Plasmas</i> , 2000, 7, 4357-4359.	1.9	7
75	Confinement mechanisms in the radiatively improved mode. <i>Plasma Physics and Controlled Fusion</i> , 1999, 41, B317-B327.	2.1	25
76	Evidence of suppression of ITG-instability in the radiatively improved mode in TEXTOR-94. <i>Plasma Physics and Controlled Fusion</i> , 1999, 41, L9-L15.	2.1	37
77	Transport studies of high-Z elements in neon edge radiation cooled discharges in TEXTOR-94. <i>Plasma Physics and Controlled Fusion</i> , 1997, 39, 1615-1634.	2.1	51
78	High confinement and high density with stationary plasma energy and strong edge radiation cooling in the upgraded Torus Experiment for Technology Oriented Research (TEXTOR-94). <i>Physics of Plasmas</i> , 1997, 4, 1690-1698.	1.9	54
79	High Confinement and High Density with Stationary Plasma Energy and Strong Edge Radiation in the TEXTOR-94 Tokamak. <i>Physical Review Letters</i> , 1996, 77, 2487-2490.	7.8	114
80	The influence of impurities on limiter tokamak plasmas and relevant mechanisms. <i>Plasma Physics and Controlled Fusion</i> , 1995, 37, A241-A253.	2.1	27
81	Non-Linear phenomena in textor plasmas caused by impurity radiation. <i>Physica Scripta</i> , 1995, 51, 665-672.	2.5	14
82	The possible nature of the localized recycling effect on the plasma edge in Tokamaks. <i>Plasma Physics and Controlled Fusion</i> , 1993, 35, 1119-1135.	2.1	39
83	Tokamak Edge Plasma Transition to the State with Detachment from Limiter. <i>Contributions To Plasma Physics</i> , 1988, 28, 355-358.	1.1	4
84	Noise-Free Rapid Approach to Solve Kinetic Equations for Hot Atoms in Fusion Plasmas. , 0, , .		0