

Dmitry A Semenov

List of Publications by Year in descending order

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90
papers

4,434
citations

81900

39
h-index

106344

65
g-index

92
all docs

92
docs citations

92
times ranked

2856
citing authors

#	ARTICLE	IF	CITATIONS
1	Mass determination of protoplanetary disks from dust evolution. <i>Astronomy and Astrophysics</i> , 2022, 657, A74.	5.1	7
2	Possible Ribose Synthesis in Carbonaceous Planetesimals. <i>Life</i> , 2022, 12, 404.	2.4	6
3	Dark cloud-type chemistry in photodissociation regions with moderate ultraviolet field. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 3810-3829.	4.4	3
4	Discovery of Molecular-line Polarization in the Disk of TW Hya. <i>Astrophysical Journal</i> , 2021, 922, 139.	4.5	10
5	Lack of other molecules in CO-rich debris discs: is it primordial or secondary gas?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 510, 1148-1162.	4.4	13
6	Retrieving scattering clouds and disequilibrium chemistry in the atmosphere of HR 8799e. <i>Astronomy and Astrophysics</i> , 2020, 640, A131.	5.1	107
7	Accretion disks around young stars: the cradles of planet formation. <i>Europhysics News</i> , 2020, 51, 29-32.	0.3	1
8	Using HCO ⁺ isotopologues as tracers of gas depletion in protoplanetary disk gaps. <i>Astronomy and Astrophysics</i> , 2020, 644, A4.	5.1	8
9	ALMA and VLA Observations of EX Lupi in Its Quiescent State. <i>Astrophysical Journal</i> , 2020, 904, 37.	4.5	4
10	Gas Density Perturbations Induced by One or More Forming Planets in the AS 209 Protoplanetary Disk as Seen with ALMA. <i>Astrophysical Journal</i> , 2019, 871, 107.	4.5	38
11	Luminosity outburst chemistry in protoplanetary discs: going beyond standard tracers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 1843-1863.	4.4	22
12	VLA cm-wave survey of young stellar objects in the Oph A cluster: constraining extreme UV- and X-ray-driven disk photoevaporation. <i>Astronomy and Astrophysics</i> , 2019, 631, A58.	5.1	6
13	Fragmentation, rotation, and outflows in the high-mass star-forming region IRAS 23033+5951. <i>Astronomy and Astrophysics</i> , 2019, 629, A10.	5.1	12
14	ALMA continuum observations of the protoplanetary disk AS 209. <i>Astronomy and Astrophysics</i> , 2018, 610, A24.	5.1	140
15	Episodic accretion in focus: revealing the environment of FU Orionis-type stars. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 87-90.	0.0	0
16	Physical properties and chemical composition of the cores in the California molecular cloud. <i>Astronomy and Astrophysics</i> , 2018, 620, A163.	5.1	21
17	Temperature, Mass, and Turbulence: A Spatially Resolved Multiband Non-LTE Analysis of CS in TW Hya. <i>Astrophysical Journal</i> , 2018, 864, 133.	4.5	75
18	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2018, 617, A28.	5.1	45

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19	Chemical Signatures of the FU Ori Outbursts. <i>Astrophysical Journal</i> , 2018, 866, 46.	4.5	29
20	Chemical modeling of FU Ori protoplanetary disks. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 367-368.	0.0	0
21	First Detection of the Simplest Organic Acid in a Protoplanetary Disk*. <i>Astrophysical Journal Letters</i> , 2018, 862, L2.	8.3	73
22	Grain Surface Models and Data for Astrochemistry. <i>Space Science Reviews</i> , 2017, 212, 1-58.	8.1	177
23	A Surface Density Perturbation in the TW Hydrae Disk at 95 au Traced by Molecular Emission. <i>Astrophysical Journal</i> , 2017, 835, 228.	4.5	35
24	Origin of the RNA world: The fate of nucleobases in warm little ponds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11327-11332.	7.1	139
25	The chemical structure of the Class 0 protostellar envelope NGC 1333 IRAS 4A. <i>Astronomy and Astrophysics</i> , 2017, 603, A88.	5.1	6
26	Gas Mass Tracers in Protoplanetary Disks: CO is Still the Best. <i>Astrophysical Journal</i> , 2017, 849, 130.	4.5	54
27	On the methanol emission detection in the TW Hya disc: the role of grain surface chemistry and non-LTE excitation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 468, 2024-2031.	4.4	3
28	Efficiency of thermal relaxation by radiative processes in protoplanetary discs: constraints on hydrodynamic turbulence. <i>Astronomy and Astrophysics</i> , 2017, 605, A30.	5.1	47
29	The Flying Saucer: Tomography of the thermal and density gas structure of an edge-on protoplanetary disk. <i>Astronomy and Astrophysics</i> , 2017, 607, A130.	5.1	47
30	Magnetic diffusivities in 3D radiative chemo-hydrodynamic simulations of protostellar collapse. <i>Astronomy and Astrophysics</i> , 2017, 603, A105.	5.1	22
31	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2016, 592, A124.	5.1	48
32	Importance of the H ₂ abundance in protoplanetary disk ices for the molecular layer chemical composition. <i>Astronomy and Astrophysics</i> , 2016, 594, A35.	5.1	17
33	Measuring turbulence in TW Hydrae with ALMA: methods and limitations. <i>Astronomy and Astrophysics</i> , 2016, 592, A49.	5.1	141
34	COLD CO GAS IN THE DISK OF THE YOUNG ERUPTIVE STAR EX LUP. <i>Astrophysical Journal Letters</i> , 2016, 821, L4.	8.3	6
35	Towards detecting methanol emission in low-mass protoplanetary discs with ALMA: the role of non-LTE excitation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 460, 2648-2663.	4.4	31
36	Resolving the chemical substructure of Orion-KL (Corrigendum). <i>Astronomy and Astrophysics</i> , 2016, 590, C1.	5.1	3

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37	The shadow of the Flying Saucer: A very low temperature for large dust grains. <i>Astronomy and Astrophysics</i> , 2016, 586, L1.	5.1	28
38	Chemical evolution in the early phases of massive star formation. <i>Astronomy and Astrophysics</i> , 2015, 579, A80.	5.1	38
39	Resolving the chemical substructure of Orion-KL. <i>Astronomy and Astrophysics</i> , 2015, 581, A71.	5.1	47
40	The HIFI spectral survey of AFGL 2591 (CHESS). <i>Astronomy and Astrophysics</i> , 2015, 574, A71.	5.1	9
41	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2015, 574, A137.	5.1	46
42	Protoplanetary Disk, <i>Chemistry</i> , 2015, , 2058-2073.		0
43	Chemical evolution in the early phases of massive star formation. I. <i>Astronomy and Astrophysics</i> , 2014, 563, A97.	5.1	98
44	FIRST TIME-DEPENDENT STUDY OF H ₂ AND H ₃ ⁺ ORTHO-PARA CHEMISTRY IN THE DIFFUSE INTERSTELLAR MEDIUM: OBSERVATIONS MEET THEORETICAL PREDICTIONS. <i>Astrophysical Journal</i> , 2014, 787, 44.	4.5	21
45	CHEMODYNAMICAL DEUTERIUM FRACTIONATION IN THE EARLY SOLAR NEBULA: THE ORIGIN OF WATER ON EARTH AND IN ASTEROIDS AND COMETS. <i>Astrophysical Journal</i> , 2014, 784, 39.	4.5	86
46	Physical and Chemical Structure of Planet-Forming Disks Probed by Millimeter Observations and Modeling. , 2014, , .		33
47	Deuterium Fractionation: The Ariadne's Thread from the Precollapse Phase to Meteorites and Comets Today. , 2014, , .		30
48	Protoplanetary Disk, <i>Chemistry</i> , 2014, , 1-17.		0
49	Toward a Chemical Evolutionary Sequence in High-Mass Star Formation. Thirty Years of Astronomical Discovery With UKIRT, 2014, , 415-416.	0.3	0
50	Chemistry in Protoplanetary Disks. <i>Chemical Reviews</i> , 2013, 113, 9016-9042.	47.7	188
51	NEW EXTENDED DEUTERIUM FRACTIONATION MODEL: ASSESSMENT AT DENSE ISM CONDITIONS AND SENSITIVITY ANALYSIS. <i>Astrophysical Journal, Supplement Series</i> , 2013, 207, 27.	7.7	76
52	PROTOPLANETARY DISK STRUCTURE WITH GRAIN EVOLUTION: THE ANDES MODEL. <i>Astrophysical Journal</i> , 2013, 766, 8.	4.5	74
53	Gas-phase CO depletion and N ₂ H ⁺ abundances in starless cores. <i>Astronomy and Astrophysics</i> , 2013, 560, A41.	5.1	37
54	Modeling deuterium chemistry of interstellar space with large chemical networks. <i>Proceedings of the International Astronomical Union</i> , 2012, 10, 624-625.	0.0	0

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55	CHEMISTRY IN DISKS. VII. FIRST DETECTION OF HC ₃ N IN PROTOPLANETARY DISKS. <i>Astrophysical Journal</i> , 2012, 756, 58.	4.5	61
56	Tracing the evolutionary stage of Bok globules: CCS and NH ₃ . <i>Astronomy and Astrophysics</i> , 2012, 537, A4.	5.1	14
57	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2012, 548, A70.	5.1	64
58	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2011, 535, A104.	5.1	49
59	Chemical Evolution of a Protoplanetary Disk. <i>Proceedings of the International Astronomical Union</i> , 2011, 7, 114-126.	0.0	1
60	CHEMISTRY OF A PROTOPLANETARY DISK WITH GRAIN SETTLING AND Ly β RADIATION. <i>Astrophysical Journal</i> , 2011, 726, 29.	4.5	111
61	CHEMICAL EVOLUTION OF TURBULENT PROTOPLANETARY DISKS AND THE SOLAR NEBULA. <i>Astrophysical Journal</i> , Supplement Series, 2011, 196, 25.	7.7	129
62	Chemical and isotopic evolution of the solar nebula and protoplanetary disks. , 2010, , 97-127.		29
63	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2010, 522, A42.	5.1	171
64	CHEMISTRY IN DISKS. III. PHOTOCHEMISTRY AND X-RAY DRIVEN CHEMISTRY PROBED BY THE ETHYNYL RADICAL (CCH) IN DM Tau, LkCa 15, AND MWC 480. <i>Astrophysical Journal</i> , 2010, 714, 1511-1520.	4.5	72
65	A UNIFIED MONTE CARLO TREATMENT OF GAS-GRAIN CHEMISTRY FOR LARGE REACTION NETWORKS. I. TESTING VALIDITY OF RATE EQUATIONS IN MOLECULAR CLOUDS. <i>Astrophysical Journal</i> , 2009, 691, 1459-1469.	4.5	66
66	Rotating molecular outflows: the young T Tauri star in CB ϵ 26. <i>Astronomy and Astrophysics</i> , 2009, 494, 147-156.	5.1	70
67	A NEW MODIFIED-RATE APPROACH FOR GAS-GRAIN CHEMISTRY: COMPARISON WITH A UNIFIED LARGE-SCALE MONTE CARLO SIMULATION. <i>Astrophysical Journal</i> , 2009, 700, L43-L46.	4.5	52
68	Molecular structure of brown-dwarf disks. <i>Astronomy Reports</i> , 2008, 52, 941-949.	0.9	4
69	The birth and death of organic molecules in protoplanetary disks. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 89-98.	0.0	3
70	Chemical and Thermal Structure of Protoplanetary Disks as Observed with ALMA. <i>Astrophysical Journal</i> , 2008, 673, L195-L198.	4.5	30
71	Ethynyl (C ₂ H) in Massive Star formation: Tracing the Initial Conditions?. <i>Astrophysical Journal</i> , 2008, 675, L33-L36.	4.5	79
72	Molecular Emission Line Formation in Prestellar Cores. <i>Astrophysical Journal</i> , 2008, 689, 335-350.	4.5	25

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73	Cavities in inner disks: the GM Aurigae case. <i>Astronomy and Astrophysics</i> , 2008, 490, L15-L18.	5.1	57
74	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2008, 491, 821-827.	5.1	29
75	Chemistry in Protoplanetary Disks: A Sensitivity Analysis. <i>Astrophysical Journal</i> , 2008, 672, 629-641.	4.5	75
76	Molecular Line Radiative Transfer in Protoplanetary Disks: Monte Carlo Simulations versus Approximate Methods. <i>Astrophysical Journal</i> , 2007, 669, 1262-1278.	4.5	44
77	Chemistry in disks. <i>Astronomy and Astrophysics</i> , 2007, 464, 615-623.	5.1	71
78	Gas-Phase CO in Protoplanetary Disks: A Challenge for Turbulent Mixing. <i>Astrophysical Journal</i> , 2006, 647, L57-L60.	4.5	71
79	A Rotating Disk around the Very Young Massive Star AFGL 490. <i>Astrophysical Journal</i> , 2006, 637, L129-L132.	4.5	36
80	Modeling the NIR-silhouette massive disk candidate in M 17. <i>Astronomy and Astrophysics</i> , 2006, 456, 1013-1026.	5.1	12
81	Millimeter Observations and Modeling of the AB Aurigae System. <i>Astrophysical Journal</i> , 2005, 621, 853-874.	4.5	54
82	Reduction of chemical networks. <i>Astronomy and Astrophysics</i> , 2004, 417, 93-106.	5.1	129
83	Influence of uncertainties in the rate constants of chemical reactions on astrochemical modeling results. <i>Astronomy Letters</i> , 2004, 30, 566-576.	1.0	52
84	A database of optical constants of cosmic dust analogs. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003, 79-80, 765-774.	2.3	38
85	Rosseland and Planck mean opacities for protoplanetary discs. <i>Astronomy and Astrophysics</i> , 2003, 410, 611-621.	5.1	422
86	Reduction of chemical networks. <i>Astronomy and Astrophysics</i> , 2003, 399, 197-210.	5.1	27
87	3D continuum radiative transfer in complex dust configurations around stellar objects and active galactic nuclei. <i>Astronomy and Astrophysics</i> , 2003, 401, 405-418.	5.1	32
88	Probing Dust around Brown Dwarfs: The Naked LP 944-20 and the Disk of Chamaeleon HÎ± 2. <i>Astrophysical Journal</i> , 2002, 573, L115-L117.	4.5	40
89	The temperature of nonspherical circumstellar dust grains. <i>Astronomy Letters</i> , 2000, 26, 679-690.	1.0	8
90	The Ionization State of Protoplanetary Disks: The Chemical View. <i>Springer Proceedings in Physics</i> , 1997, 555-560.	0.2	0