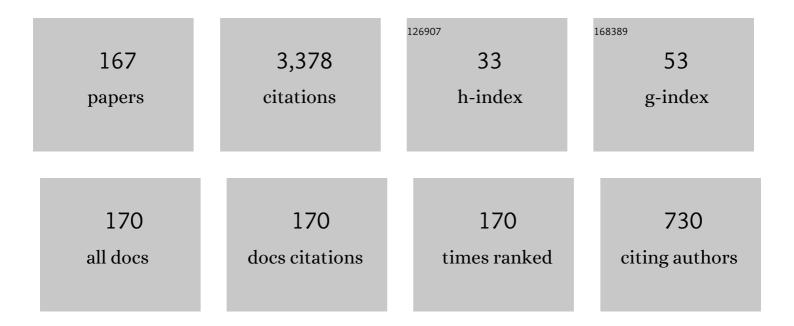
Boris V Somov

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Discontinuous plasma flows near reconnecting current layers in solar flares. Astronomy Reports, 2017, 61, 239-255.	0.9	0
2	Electron acceleration in solar-flare magnetic traps: Model properties and their observational confirmations. Astronomy Letters, 2017, 43, 614-623.	1.0	4
3	On an efficient shock wave generation mechanism in the quiet solar transition region. Astronomy Letters, 2017, 43, 567-572.	1.0	0
4	Thermal instability of a reconnecting current layer as a trigger for solar flares. Journal of Experimental and Theoretical Physics, 2017, 125, 347-356.	0.9	2
5	Physical properties of the quiet solar chromosphere–corona transition region. Astronomy Letters, 2016, 42, 825-840.	1.0	4
6	Thermal instability of the reconnecting current layer in solar flares. Astronomy Letters, 2016, 42, 841-849.	1.0	7
7	X-ray and microwave emissions from the July 19, 2012 solar flare: Highly accurate observations and kinetic models. Astronomy Letters, 2016, 42, 531-543.	1.0	7
8	On the most typical structure of three-dimensional magnetic reconnection. Astronomy Letters, 2016, 42, 774-781.	1.0	1
9	MHD discontinuities in solar flares: Continuous transitions and plasma heating. Advances in Space Research, 2015, 56, 2779-2792.	2.6	4
10	An analysis of magnetic field and magnetosphere of neutron star under effect of a shock wave. Advances in Space Research, 2015, 56, 964-969.	2.6	8
11	Plasma flows in the quiet solar chromosphere-corona transition region. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2015, 70, 153-159.	0.4	1
12	Analytical solution to the problem of interaction between a shock wave and a neutron star's magnetosphere. Doklady Physics, 2014, 59, 355-359.	0.7	2
13	Reverse-current effect in present-day models of solar flares: Theory and high-accuracy observations. Astronomy Letters, 2014, 40, 499-509.	1.0	12
14	Plasma heating by discontinuous MHD flows in the vicinity of a magnetic reconnection region. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta,) Tj ETQq0 0 0 rgBT	- O. ærlock	2 100 Tf 50 21
15	Magnetic Reconnection. Astrophysics and Space Science Library, 2013, , 1-17.	2.7	22
16	Solar-Type Flares in Laboratory and Space. Astrophysics and Space Science Library, 2013, , 275-291.	2.7	0
17	Structural Instability of Reconnecting Current Layers. Astrophysics and Space Science Library, 2013, , 321-349.	2.7	0
18	Magnetic Reconnection and Turbulence. Astrophysics and Space Science Library, 2013, , 377-396.	2.7	17

#	Article	IF	CITATIONS
19	Reconnection in Weakly-Ionized Plasma. Astrophysics and Space Science Library, 2013, , 397-414.	2.7	Ο
20	Generalized Analytical Models of Reconnection. Astrophysics and Space Science Library, 2013, , 47-65.	2.7	0
21	Electric Currents Related to Reconnection. Astrophysics and Space Science Library, 2013, , 143-175.	2.7	0
22	Continuous transitions between discontinuous magnetohydrodynamic flows of plasma and its heating. Journal of Experimental and Theoretical Physics, 2013, 117, 1164-1172.	0.9	4
23	Particles and Fields: Exact Self-consistent Description. Astrophysics and Space Science Library, 2013, , 1-17.	2.7	Ο
24	Propagation of Fast Particles in Plasma. Astrophysics and Space Science Library, 2013, , 59-85.	2.7	0
25	Stationary Flows in a Magnetic Field. Astrophysics and Space Science Library, 2013, , 429-453.	2.7	0
26	Plasma Equilibrium in Magnetic Field. Astrophysics and Space Science Library, 2013, , 403-427.	2.7	0
27	Particle Acceleration by Shock Waves. Astrophysics and Space Science Library, 2013, , 387-401.	2.7	0
28	Evolutionarity of MHD Discontinuities. Astrophysics and Space Science Library, 2013, , 363-386.	2.7	0
29	Macroscopic Description of Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 181-210.	2.7	Ο
30	Statistical Description of Interacting Particle Systems. Astrophysics and Space Science Library, 2013, , 19-36.	2.7	0
31	Weakly-Coupled Systems with Binary Collisions. Astrophysics and Space Science Library, 2013, , 37-57.	2.7	Ο
32	Motion of a Charged Particle in Given Fields. Astrophysics and Space Science Library, 2013, , 87-113.	2.7	1
33	Adiabatic Invariants in Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 115-127.	2.7	1
34	Wave-Particle Interaction in Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 129-146.	2.7	2
35	Coulomb Collisions in Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 147-180.	2.7	Ο
36	Multi-Fluid Models of Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 211-221.	2.7	1

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37	The Generalized Ohm's Law in Plasma. Astrophysics and Space Science Library, 2013, , 223-236.	2.7	1
38	Single-Fluid Models for Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 237-262.	2.7	1
39	Magnetohydrodynamics in Astrophysics. Astrophysics and Space Science Library, 2013, , 263-283.	2.7	0
40	Plasma Flows in a Strong Magnetic Field. Astrophysics and Space Science Library, 2013, , 285-306.	2.7	0
41	MHD Waves in Astrophysical Plasma. Astrophysics and Space Science Library, 2013, , 307-332.	2.7	Ο
42	Discontinuous Flows in a MHD Medium. Astrophysics and Space Science Library, 2013, , 333-361.	2.7	0
43	The Bastille Day Flare and Similar Solar Flares. Astrophysics and Space Science Library, 2013, , 109-141.	2.7	Ο
44	Reconnection in a Strong Magnetic Field. Astrophysics and Space Science Library, 2013, , 19-45.	2.7	0
45	Magnetic Reconnection of Electric Currents. Astrophysics and Space Science Library, 2013, , 415-437.	2.7	Ο
46	Evidence of Reconnection in Solar Flares. Astrophysics and Space Science Library, 2013, , 67-90.	2.7	17
47	Reconnection in Action. Astrophysics and Space Science Library, 2013, , 91-107.	2.7	1
48	Tearing Instability of Reconnecting Current Layers. Astrophysics and Space Science Library, 2013, , 351-376.	2.7	0
49	Particle Acceleration in Current Layers. Astrophysics and Space Science Library, 2013, , 293-320.	2.7	17
50	Fast Particles in Solar Flares. Astrophysics and Space Science Library, 2013, , 439-457.	2.7	0
51	Models of Reconnecting Current Layers. Astrophysics and Space Science Library, 2013, , 177-211.	2.7	Ο
52	Collapsing Magnetic Traps in Solar Flares. Astrophysics and Space Science Library, 2013, , 213-274.	2.7	0
53	Predicting the main parameters of solar cycle 24 by the number of spotless days in the previous minimum. Izvestiya - Atmospheric and Oceanic Physics, 2012, 48, 717-723.	0.9	1
54	Analytical Models of Generalized Syrovatskii's Current Layer with MHD ShockWaves. Thirty Years of Astronomical Discovery With UKIRT, 2012, , 133-144.	0.3	2

#	Article	IF	CITATIONS
55	On the nature of the transition region between the solar corona and chromosphere. Astronomy Letters, 2012, 38, 801-812.	1.0	6
56	On continuous transitions between discontinuous MHD solutions in the magnetic reconnection problem. Astronomy Letters, 2012, 38, 744-753.	1.0	4
57	On the Problem of Heat Transport in the Solar Atmosphere. Thirty Years of Astronomical Discovery With UKIRT, 2012, , 39-46.	0.3	Ο
58	Evolutionary of Discontinuous Plasma Flows in the Vicinity of Reconnecting Current Layers. Thirty Years of Astronomical Discovery With UKIRT, 2012, , 117-131.	0.3	0
59	Magnetic-topology evolution in NOAA AR 10501 on 2003 November 18. Astronomy and Astrophysics, 2012, 538, A138.	5.1	22
60	On bremsstrahlung radiation of accelerated electrons in solar flares. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2012, 67, 102-108.	0.4	2
61	On the magnetic reconnection of electric currents in solar flares. Astronomy Letters, 2012, 38, 128-138.	1.0	22
62	Signatures of Magnetic Reconnection in Solar Eruptive Flares: A Multi-wavelength Perspective. Thirty Years of Astronomical Discovery With UKIRT, 2012, , 29-41.	0.3	14
63	Fast magnetic reconnection and particle acceleration in the non-equilibrium magnetosphere of a relativistic star. Astronomy Reports, 2011, 55, 962-977.	0.9	5
64	Generalized analytical models of Syrovatskii's current sheet. Astronomy Letters, 2011, 37, 113-130.	1.0	50
65	On discontinuous plasma flows in the vicinity of reconnecting current sheets in solar flares. Astronomy Letters, 2011, 37, 131-140.	1.0	23
66	On the heat conduction in a high-temperature plasma in solar flares. Astronomy Letters, 2011, 37, 726-736.	1.0	12
67	A new scenario for impulsive bursts of hard electromagnetic radiation in space plasma. Astronomy Letters, 2011, 37, 679-691.	1.0	22
68	Heat-transfer mechanisms in solar flares. 1: Classical and anomalous heat conduction. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2011, 66, 286-291.	0.4	21
69	Heat-transfer mechanisms in solar flares. 2: Consideration of heat-flux relaxation. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2011, 66, 292-297.	0.4	20
70	The kinetic description of the accelerated-electron flux in solar flares. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2011, 66, 466-472.	0.4	7
71	On the stability of the solar chromosphere-corona transition region. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2011, 66, 462-465.	0.4	1
72	Magnetic reconnection and acceleration of particles on the sun. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 735-737.	0.6	6

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73	Method of conformal mappings for calculation of electric currents in magnetospheres of compact stars. Journal of Mathematical Sciences, 2011, 172, 852-858.	0.4	2
74	EVIDENCE OF SOLAR FLARE TRIGGERING DUE TO LOOP-LOOP INTERACTION CAUSED BY FOOTPOINT SHEAR MOTION. Astrophysical Journal, 2010, 723, 1651-1664.	4.5	25
75	Interpretation of the observed motions of hard X-ray sources in solar flares. Astronomy Letters, 2010, 36, 514-519.	1.0	4
76	Some properties of discontinuous flows near magnetic reconnection regions. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2010, 65, 126-131.	0.4	0
77	Methods of complex analysis in model calculations of the magnetospheres of relativistic stars. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta,) Tj ETQq1 1 0.784	13 101 47gBT	/Overlock 10
78	On the classic heat conduction in the chromosphere-corona transition region of the solar atmosphere. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo) Tj ETQq0 0 0 rgB	T / O værloc	k 130 Tf 50 53
79	Magnetic reconnection in solar flares. Physics-Uspekhi, 2010, 53, 954-958.	2.2	16
80	On ejection of solar plasma enriched with 3He and Fe I at boundaries of coronal holes. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2009, 64, 334-338.	0.4	0
81	Determination of the gradient magnetic field above a sunspot based on observations of the Hel and Fel infrared lines. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo) Tj ETQq1 1 0.78	43 ₫. 4rgB⁻	[Qverlock]
82	Effect of Coulomb collisions on the particle acceleration in collapsing magnetic traps. Astronomy Letters, 2009, 35, 57-69.	1.0	36
83	Analytical description of charged particle motion in a reconnecting current sheet. Astronomy Letters, 2009, 35, 195-206.	1.0	39
84	Evolution of the photospheric magnetic field and coronal null points before solar flares. Astronomy Letters, 2009, 35, 207-213.	1.0	23
85	MAGNETIC RECONNECTION DURING THE TWO-PHASE EVOLUTION OF A SOLAR ERUPTIVE FLARE. Astrophysical Journal, 2009, 706, 1438-1450.	4.5	46
86	An interpretation of rapid changes in the magnetic field associated with solar flares. Astronomische Nachrichten, 2008, 329, 786-789.	1.2	2
87	Magnetic reconnection, electric field, and particle acceleration in the July 14, 2000 solar flare. Astronomy Letters, 2008, 34, 327-336.	1.0	20
88	On the topological trigger of large eruptive solar flares. Astronomy Letters, 2008, 34, 635-645.	1.0	22
89	Instability of entropy waves in cosmic plasma. Cosmic Research, 2008, 46, 392-395.	0.6	1
90	Formation of power-law electron spectra in collapsing magnetic traps. Astronomy Letters, 2007, 33, 54-62.	1.0	30

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91	Analytical model of magnetic reconnection in the presence of shock waves attached to a current sheet. Astronomy Letters, 2007, 33, 130-136.	1.0	49
92	Peculiarities of entropy and magnetosonic waves in optically thin cosmic plasma. Astronomy Letters, 2007, 33, 309-318.	1.0	29
93	Current state of the problem of solar flares: New observations and new models. Solar System Research, 2006, 40, 85-92.	0.7	3
94	On the causes of the observed magnetic field imbalance in solar active regions. Astronomy Letters, 2006, 32, 787-793.	1.0	1
95	The Motions of the Hard Xâ€Ray Sources in Solar Flares: Images and Statistics. Astrophysical Journal, 2005, 630, 561-572.	4.5	104
96	Motion of the HXR sources in solar flares: Yohkoh images and statistics. Advances in Space Research, 2005, 35, 1700-1706.	2.6	23
97	Large-scale reconnection in a large flare. Advances in Space Research, 2005, 35, 1712-1722.	2.6	27
98	Comparison of the Fermi and betatron acceleration efficiencies in collapsing magnetic traps. Astronomy Letters, 2005, 31, 537-545.	1.0	41
99	On upward motions of coronal hard X-ray sources in solar flares. Advances in Space Research, 2005, 35, 1690-1699.	2.6	23
100	Topological model for the large solar flare of July 14, 2000. Astronomy Reports, 2004, 48, 246-253.	0.9	2
101	A two-dimensional model of the magnetosphere of a compact star with an accretion disc. Prikladnaya Matematika I Mekhanika, 2004, 68, 405-412.	0.4	0
102	Solar flare physics. Proceedings of the International Astronomical Union, 2004, 2004, 417-424.	0.0	3
103	A Simple Topological Model of the Bastille Day Flare (2000, July 14). AIP Conference Proceedings, 2004, ,	0.4	1
104	The He I 10830 Ã Line as an Indicator of Solar Activity. Solar System Research, 2003, 37, 227-237.	0.7	2
105	Modeling large solar flares. Advances in Space Research, 2003, 32, 2439-2450.	2.6	28
106	Role of anisotropy of the initial particle distribution in the acceleration in collapsing solar-flare traps. Astronomy Letters, 2003, 29, 111-115.	1.0	2
107	The role of collisions in the particle acceleration in solar-flare magnetic traps. Astronomy Letters, 2003, 29, 409-415.	1.0	26
108	The betatron effect in collapsing magnetic traps. Astronomy Letters, 2003, 29, 621-628.	1.0	45

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109	Flares in accretion disk coronae. Advances in Space Research, 2003, 32, 1087-1096.	2.6	44
110	Magnetic Reconnection Scenario of the Bastille Day 2000 Flare. Astrophysical Journal, 2002, 579, 863-873.	4.5	80
111	Three-dimensional reconnection at the sun: space observations and collisionless models. Advances in Space Research, 2002, 29, 1035-1044.	2.6	18
112	Is it possible to accelerate ions in collapsing magnetic traps?. Advances in Space Research, 2002, 30, 55-60.	2.6	20
113	On the acceleration of solar-flare charged particles in a collapsing magnetic trap with an electric potential. Astronomy Letters, 2002, 28, 488-493.	1.0	24
114	Aspects of the Global MHD Equilibria and Filament Eruptions in the Solar Corona. Space Science Reviews, 2001, 95, 67-77.	8.1	19
115	Acceleration of charged particles in collapsing magnetic traps during solar flares. Astronomy Reports, 2001, 45, 157-161.	0.9	5
116	A simple analytic model of reconnection in a high-temperature turbulent sheet. Astronomy Letters, 2000, 26, 750-755.	1.0	9
117	Studying coronal holes through observations of an Hel infrared line and the HÎ \pm line. Astronomy Reports, 2000, 44, 401-406.	0.9	2
118	Basic physics of collisionless three-dimensional reconnection in the solar corona related to Yohkoh observations. Advances in Space Research, 2000, 25, 1821-1824.	2.6	1
119	Cosmic Plasma Physics. Astrophysics and Space Science Library, 2000, , .	2.7	69
120	Collisionless Threeâ€dimensional Reconnection in Impulsive Solar Flares. Astrophysical Journal, 1998, 497, 943-956.	4.5	45
121	Collisionless Reconnection and Highâ€Energy Particle Acceleration in Solar Flares. Astrophysical Journal, 1997, 485, 859-868.	4.5	248
122	Theoretical perspectives on the study of coronal dynamic phenomena. Advances in Space Research, 1996, 17, 251-259.	2.6	0
123	Magnetohydrodynamic discontinuities in space plasmas: Interrelation between stability and structure. Space Science Reviews, 1996, 78, 443.	8.1	32
124	Evidence for prolonged acceleration based on a detailed analysis of the long-duration solar gamma-ray flare of June 15, 1991. Solar Physics, 1996, 166, 107-134.	2.5	96
125	Interpretation of the Observed Plasma ``Turbulent'' Velocities as a Result of Magnetic Reconnection in Solar Flares. Astrophysical Journal, 1996, 456, 833.	4.5	50
126	XUV lines emitted from plasma accelerated during magnetic reconnection. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1995, 17, 1149-1153.	0.4	1

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127	Non-evolutionarity of a reconnecting current sheet as a cause of its splitting into MHD shocks. Solar Physics, 1995, 158, 43-69.	2.5	0
128	Relativistic acceleration of protons in reconnecting current sheets of solar flares. Solar Physics, 1995, 158, 317-330.	2.5	73
129	Observational support of reconnection in solar flares. Space Science Reviews, 1994, 68, 129-130.	8.1	1
130	Features of mass supply and flows related with reconnection in the solar corona. Space Science Reviews, 1994, 70, 161-166.	8.1	21
131	Magnetic reconnection in the temperature minimum region and prominence formation. Solar Physics, 1994, 151, 265-270.	2.5	41
132	Electric currents in magnetic flux-tubes. Advances in Space Research, 1993, 13, 23-26.	2.6	0
133	Tearing instability of reconnecting current sheets in space plasmas. Space Science Reviews, 1993, 65, 253-288.	8.1	46
134	Particle acceleration in reconnecting current sheets. Solar Physics, 1993, 146, 127-133.	2.5	99
135	Physical Processes in Solar Flares. Astrophysics and Space Science Library, 1992, , .	2.7	214
136	Magnetically driven coronal transients. Advances in Space Research, 1991, 11, 179-185.	2.6	9
137	Nonthermal electrons in the thick-target reverse-current model for hard X-ray bremsstrahlung. Solar Physics, 1991, 131, 319-336.	2.5	33
138	A Scenario for the Large-Scale Magnetic Field Evolution in CMEs. Journal of Geomagnetism and Geoelectricity, 1991, 43, 31-36.	0.9	20
139	Magnetic reconnection on the separator as a cause of a two-ribbon flare. Advances in Space Research, 1990, 10, 105-108.	2.6	35
140	Electrodynamic conversion of energy: Magnetic field amplification in the solar photosphere. Advances in Space Research, 1990, 10, 179-183.	2.6	0
141	Magnetic reconnection in a high-temperature plasma of solar flares. Solar Physics, 1989, 120, 93-115.	2.5	36
142	Photospheric vortex flows as a cause for two-ribbon flares: A topological model. Solar Physics, 1988, 117, 77-88.	2.5	118
143	Magnetic reconnection in high-temperature plasma of solar flares. Solar Physics, 1988, 117, 89-95.	2.5	14
144	Thermal electrons runaway from a hot plasma during a flare in the reverse-current model and their X-ray bremsstrahlung. Solar Physics, 1988, 116, 119.	2.5	52

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145	Energy release in flares. Advances in Space Research, 1986, 6, 177-185.	2.6	5
146	Hard X-ray bremsstrahlung produced by electrons escaping a high-temperature thermal source in a solar flare. Solar Physics, 1985, 97, 81-105.	2.5	17
147	Magnetic reconnection in a high-temperature plasma of solar flares. Solar Physics, 1985, 102, 79-96.	2.5	54
148	Magnetic reconnection in a high-temperature plasma of solar flares. Solar Physics, 1985, 95, 141-153.	2.5	18
149	New theoretical models of solar flares. Uspekhi Fizicheskikh Nauk, 1985, 28, 271-272.	0.3	13
150	Magnetic reconnection in a high-temperature plasma of solar flares. Advances in Space Research, 1984, 4, 183-185.	2.6	2
151	Flare loops heated by thermal conduction. Solar Physics, 1984, 93, 95-104.	2.5	30
152	The flares of April 1980. Solar Physics, 1983, 85, 157-184.	2.5	57
153	Purely coronal flare-like variations. Solar Physics, 1983, 85, 313-337.	2.5	27
154	Evolution of a flaring loop after injection of energetic electrons. Solar Physics, 1983, 88, 257.	2.5	41
155	The flares of April, 1980. Advances in Space Research, 1982, 2, 101-104.	2.6	2
156	Hydrodynamic response of the solar chromosphere to an elementary flare burst. Solar Physics, 1982, 81, 281-292.	2.5	47
157	Thermal trigger for solar flares and coronal loops formation. Solar Physics, 1982, 75, 237-244.	2.5	38
158	Hydrodynamic shock wave formation in the solar chromosphere and corona during flares. Space Science Reviews, 1982, 32, 27.	8.1	8
159	Hydrodynamic response of the solar chromosphere to an elementary flare burst. Solar Physics, 1981, 73, 145.	2.5	107
160	SergeÄ-Ivanovich SyrovatskiÄ-(Obituary). Uspekhi Fizicheskikh Nauk, 1980, 23, 274-275.	0.3	2
161	Heat transfer in solar flares. Solar Physics, 1978, 60, 315-321.	2.5	5
162	Current sheets as the source of heating for solar active regions. Solar Physics, 1977, 55, 393-399.	2.5	28

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163	Physical processes in the solar atmosphere associated with flares. Uspekhi Fizicheskikh Nauk, 1976, 19, 813-835.	0.3	88
164	X-ray heating of a low-temperature region in chromospheric flares. Solar Physics, 1975, 42, 235-246.	2.5	46
165	On the low-temperature region of chromospheric flares. Solar Physics, 1974, 39, 415-430.	2.5	11
166	Possible mechanism of surge formation in the solar atmosphere. Solar Physics, 1973, 30, 139-147.	2.5	11
167	The magnetic field of a rotating cloud and magneto-rotational explosions. Astrophysics and Space Science, 1971, 11, 264-283.	1.4	29