Kirill I Rybakov

List of Publications by Year in Descending Order

52 papers	1,402 citations	14 h-index	37 g-index
54 ext. papers	1,566 ext. citations	2.3 avg, IF	4.37 L-index

#	Paper	IF	Citations
52	Application of Millimeter-Wave Radiation for Manufacture of Ceramic Items Using Additive Methods. *Radiophysics and Quantum Electronics*, **2020**, 63, 522	0.7	0
51	Millimeter-Wave Gyrotron System for Research and Application Development. Part 2. High-Temperature Processes in Polycrystalline Dielectric Materials. *Radiophysics and Quantum Electronics*, **2019**, 61, 787-796	0.7	3
50	Terahertz Dielectric Properties of Polycrystalline MgAl2O4 Spinel Obtained by Microwave Sintering and Hot Pressing. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2019**, 40, 447-455	2.2	5
49	Ultra-rapid microwave sintering employing thermal instability and resonant absorption. *Journal of Materials Research*, **2019**, 34, 2620-2634	2.5	7
48	Flash Sintering of Oxide Ceramics under Microwave Heating. *Technical Physics*, **2018**, 63, 391-397	0.5	10
47	Microwave resonant sintering of powder metals. *Scripta Materialia*, **2018**, 149, 108-111	5.6	14
46	Apparent viscosity reduction during microwave sintering of amorphous silica. *Ceramics International*, **2018**, 44, 1797-1801	5.1	1
45	Effective High-Frequency Permeability of Compacted Metal Powders. *Radiophysics and Quantum Electronics*, **2018**, 60, 797-807	0.7	3
44	Microwave Heating of Metal Power Clusters. *Technical Physics*, **2018**, 63, 45-50	0.5	0
43	Ultra-rapid microwave sintering. *Journal of Physics: Conference Series*, **2018**, 1115, 042005	0.3	0
42	Ultra-rapid microwave sintering of pure and Y2O3-doped MgAl2O4. *Journal of the American Ceramic Society*, **2018**, 102, 559	3.8	1
41	Effective Microwave Dielectric Properties of Ensembles of Spherical Metal Particles. *IEEE Transactions on Microwave Theory and Techniques*, **2017**, 65, 1479-1487	4.1	8
40	Effective magnetic permeability of compacted metal powders at microwave frequencies. *EPJ Web of Conferences*, **2017**, 149, 02008	0.3	
39	Microstructure of the microwave fast-sintered MgAl2O4 ceramics. *EPJ Web of Conferences*, **2017**, 149, 02021	0.3	2
38	Effect of specific absorbed power on microwave sintering of 3YSZ ceramics. *IOP Conference Series: Materials Science and Engineering*, **2017**, 218, 012001	0.4	4
37	On the Mechanism of Microwave Flash Sintering of Ceramics. *Materials*, **2016**, 9,	3.5	50
36	Sintering of Oxide Ceramics under Rapid Microwave Heating **2016**, 233-242		1

35	Flash Microwave Sintering of Transparent Yb:(LaY)2O3 Ceramics. *Journal of the American Ceramic Society*, **2015**, 98, 3518-3524	3.8	33
34	Temperature profile optimization for microwave sintering of bulk Ni/Al2O3 functionally graded materials. *Journal of Materials Processing Technology*, **2014**, 214, 210-216	5.3	16
33	Microwave Sintering: Fundamentals and Modeling. *Journal of the American Ceramic Society*, **2013**, 96, 1003-1020	3.8	197
32	The microwave ponderomotive effect on ceramic sintering. *Scripta Materialia*, **2012**, 66, 1049-1052	5.6	51
31	Fabrication of metal-ceramic functionally graded materials by microwave sintering. *Inorganic Materials: Applied Research*, **2012**, 3, 261-269	0.6	13
30	Microwave sintering of nanostructured ceramic materials. *Nanotechnologies in Russia*, **2011**, 6, 647-661	0.6	9
29	Effects of microwave heating in nanostructured ceramic materials. *Powder Metallurgy and Metal Ceramics*, **2010**, 49, 31-41	0.8	10
28	Absorption of microwaves in metal-ceramic powder materials. *Radiophysics and Quantum Electronics*, **2010**, 53, 354-362	0.7	9
27	Effect of microwave heating on phase transformations in nanostructured alumina. *Journal Physics D: Applied Physics*, **2008**, 41, 102008	3	23
26	Preferred orientation of pores in ceramics under heating by a linearly polarized microwave field. *Journal of Applied Physics*, **2007**, 101, 084915	2.5	28
25	Role of convective heat removal and electromagnetic field structure in the microwave heating of materials. *Journal of Materials Science*, **2007**, 42, 2097-2104	4.3	10
24	Stability of microwave heating of ceramic materials in a cylindrical cavity. *Journal Physics D: Applied Physics*, **2007**, 40, 6809-6817	3	12
23	Microwave heating of conductive powder materials. *Journal of Applied Physics*, **2006**, 99, 023506	2.5	124
22	Enhanced Mass and Charge Transfer in Solids Exposed to Microwave Fields **2006**, 472-481		5
21	Microwave heating of electrically conductive materials. *Radiophysics and Quantum Electronics*, **2005**, 48, 888-895	0.7	4
20	Diffusion Processes in Semiconductor Structures During Microwave Annealing. *Radiophysics and Quantum Electronics*, **2003**, 46, 749-755	0.7	5
19	Microwave Joining of ZrO2 and Al2O3 Ceramics Via Nanostructured Interlayers **2003**, 413-426		4
18	Evidence for microwave enhanced mass transport in the annealing of nanoporous alumina membranes. *Journal of Materials Science*, **2001**, 36, 131-136	4.3	37

17	High-temperature microwave processing of materials. *Journal Physics D: Applied Physics*, **2001**, 34, R55-R75	3	367
16	Stability of pores in solid membrane films. *Journal of Materials Science Letters*, **2000**, 19, 1851-1854		
15	Microwave ponderomotive forces in solid-state ionic plasmas. *Physics of Plasmas*, **1998**, 5, 1664-1670	2.1	85
14	Effects of anomalous permittivity on the microwave heating of zinc oxide. *Journal of Applied Physics*, **1998**, 83, 432-437	2.5	12
13	Dynamics of microwave-induced currents in ionic crystals. *Physical Review B*, **1997**, 55, 3559-3567	3.3	46
12	Possibility of Microwave-Controlled Surface Modification. *Materials Research Society Symposia Proceedings*, **1996**, 430, 435		1
11	Study of Microwave-Driven Currents in Ionic Crystals. *Materials Research Society Symposia Proceedings*, **1996**, 430, 459		
10	Observation of an Electromagnetically Driven Temperature Wave in Porous Zinc Oxide During Microwave Heating. *Materials Research Society Symposia Proceedings*, **1996**, 430, 507		1
9	Densification of powder materials in non-uniform temperature fields. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1996**, 73, 295-307		6
8	Mass transport in ionic crystals induced by the ponderomotive action of a high-frequency electric field. *Physical Review B*, **1995**, 52, 3030-3033	3.3	77
7	Possibility of plastic deformation of an ionic crystal due to the nonthermal influence of a high-frequency electric field. *Physical Review B*, **1994**, 49, 64-68	3.3	102
6	A Non-Thermal Vacancy-Drift Mechanism of Plastic Deformation of Grains in Ceramics During Microwave Sintering. *Materials Research Society Symposia Proceedings*, **1994**, 347, 661		1
5	at]Mass Transport and DC Electromotive Force Induced in Ionic Crystals by High-Frequency Electric Field. *Materials Research Society Symposia Proceedings*, **1994**, 369, 263		2
4	Microwave Heating of Ensembles of Spherical Metal Particles Surrounded by Insulating Layers223-231		
3	Microwave Ultra-Rapid Sintering of Oxide Ceramics. *Ceramic Transactions*,57-65	0.1	3
2	Enhanced Mass and Charge Transfer in Solids Exposed to Microwave Fields472-481		
1	Absorption of Millimeter Waves in Composite Metal-Ceramic Materials591-597		