Andrey Av Shkolin

List of Publications by Citations

84 papers	560 citations	12 h-index	17 g-index
90 ext. papers	773 ext. citations	1.4 avg, IF	4.14 L-index

#	Paper	IF	Citations
84	Metal-organic framework structures: adsorbents for natural gas storage. *Russian Chemical Reviews*, **2019**, 88, 925-978	6.8	33
83	Porous carbon-based adsorption systems for natural gas (methane) storage. *Russian Chemical Reviews*, **2018**, 87, 950-983	6.8	30
82	Deformation of AUK microporous carbon adsorbent induced by methane adsorption. *Colloid Journal*, **2009**, 71, 119-124	1.1	25
81	Adsorption accumulation of natural gas based on microporous carbon adsorbents of different origin. *Adsorption*, **2017**, 23, 327-339	2.6	23
80	Experimental study and numerical modeling: Methane adsorption in microporous carbon adsorbent over the subcritical and supercritical temperature regions. *Protection of Metals and Physical Chemistry of Surfaces*, **2016**, 52, 955-963	0.9	21
79	Methane adsorption on AUK microporous carbon adsorbent. *Colloid Journal*, **2008**, 70, 796-801	1.1	19
78	Methane adsorption on microporous carbon adsorbents in the region of supercritical temperatures. *Protection of Metals and Physical Chemistry of Surfaces*, **2015**, 51, 493-498	0.9	17
77	Thermodynamics of methane adsorption on the microporous carbon adsorbent ACC. *Russian Chemical Bulletin*, **2008**, 57, 1799-1805	1.7	13
76	Optimization of structural and energy characteristics of adsorbents for methane storage. *Russian Chemical Bulletin*, **2018**, 67, 1814-1822	1.7	13
75	Measurement of Adsorption of Methane at High Pressures for Alternative Energy Systems. *Measurement Techniques*, **2016**, 58, 1387-1391	0.4	12
74	Adsorption of methane on an MOF-199 organometallic framework structure at high pressures in the range of supercritical temperatures. *Protection of Metals and Physical Chemistry of Surfaces*, **2016**, 52, 24-29	0.9	12
73	Low-temperature adsorption of methane on microporous AU-1 carbon adsorbent. *Protection of Metals and Physical Chemistry of Surfaces*, **2014**, 50, 15-21	0.9	12
72	Description of methane adsorption on microporous carbon adsorbents on the range of supercritical temperatures on the basis of the Dubinin–Astakhov equation. *Protection of Metals and Physical Chemistry of Surfaces*, **2016**, 52, 575-580	0.9	11
71	Measurement of Carbon-Nanotube Adsorption of Energy-Carrier Gases for Alternative Energy Systems. *Measurement Techniques*, **2018**, 61, 395-401	0.4	11
70	Adsorption-induced deformation of AUK microporous carbon adsorbent in adsorption of n-pentane. *Protection of Metals and Physical Chemistry of Surfaces*, **2011**, 47, 555-561	0.9	11
69	Methane adsorption on microporous carbon adsorbent with wide pore size distribution. *Colloid Journal*, **2017**, 79, 144-151	1.1	10
68	Preparation of novel hybrid catalyst with an hierarchical micro-/mesoporous structure by direct growth of the HKUST-1 nanoparticles inside mesoporous silica matrix (MMS). *Microporous and Mesoporous Materials*, **2020**, 300, 110136	5.3	10

67	Deformation of AUK microporous carbon adsorbent induced by krypton adsorption. *Colloid Journal*, **2014**, 76, 351-357	1.1	10
66	Adsorption of methane on model adsorbents formed from single-wall carbon nanotubes. *Protection of Metals and Physical Chemistry of Surfaces*, **2014**, 50, 279-286	0.9	10
65	Adsorption of methane on AU-5 microporous carbon adsorbent. *Protection of Metals and Physical Chemistry of Surfaces*, **2013**, 49, 521-527	0.9	10
64	Theory of volume filling of micropores applied to the description of methane adsorption on the microporous carbon adsorbent AUK. *Russian Chemical Bulletin*, **2009**, 58, 717-721	1.7	9
63	Analysis of adsorption isosteres of gas and vapor on microporous adsorbents. *Russian Chemical Bulletin*, **2007**, 56, 393-396	1.7	9
62	Adsorption of Natural Gas Methane on Metal-Organic Framework Structures in the Range of Supercritical Temperatures. *Protection of Metals and Physical Chemistry of Surfaces*, **2018**, 54, 347-353	0.9	9
61	Adsorption of Hydrogen in Microporous Carbon Adsorbents of Different Origin. *Protection of Metals and Physical Chemistry of Surfaces*, **2019**, 55, 413-419	0.9	8
60	Adsorption deformation of AUK microporous carbon adsorbent at adsorption of n-heptane. *Protection of Metals and Physical Chemistry of Surfaces*, **2013**, 49, 373-378	0.9	8
59	Synthesis and Structure–Energy Characteristics of an MOF Al-BTC Organometallic Framework Structure. *Protection of Metals and Physical Chemistry of Surfaces*, **2017**, 53, 961-966	0.9	8
58	Wave sorbostriction in adsorption of gases and vapors. *Doklady Physical Chemistry*, **2008**, 423, 292-296	0.8	8
57	Synthesis and Structural-Energy Characteristics of Fe-BDC Metal-Organic Frameworks. *Protection of Metals and Physical Chemistry of Surfaces*, **2018**, 54, 1004-1009	0.9	8
56	A study of methane adsorption and accumulation on microporous carbon adsorbent in a wide temperature range. *Protection of Metals and Physical Chemistry of Surfaces*, **2016**, 52, 762-770	0.9	7
55	Deformation of AUK microporous carbon adsorbent induced by xenon adsorption. *Colloid Journal*, **2015**, 77, 812-820	1.1	7
54	Krypton adsorption on microporous adsorbents at higher pressures. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 639-643	0.9	7
53	A technique for measuring an adsorption-induced deformation. *Instruments and Experimental Techniques*, **2008**, 51, 150-155	0.5	7
52	The Influence of the Structural and Energetic Characteristics of the Microporous Structure of Carbon Adsorbents on Hydrogen Adsorption. *Colloid Journal*, **2019**, 81, 607-612	1.1	7
51	Functional Composite Adsorbents of High Packing Density Based on Metal-Organic Framework Structures for Methane Accumulation. *Protection of Metals and Physical Chemistry of Surfaces*, **2019**, 55, 826-832	0.9	6
50	Wave sorbostriction: Waves of adsorption deformation of microporous adsorbent. *Protection of Metals and Physical Chemistry of Surfaces*, **2012**, 48, 158-164	0.9	6

49	The energy of adsorption of methane on microporous carbon adsorbents. *Protection of Metals and Physical Chemistry of Surfaces*, **2017**, 53, 780-785	0.9	6
48	Nitrogen adsorption by microporous adsorbents in the range of high pressures and supercritical temperatures. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 519-523	0.9	6
47	Thermodynamics of Adsorbed Methane Storage Systems Based on Peat-Derived Activated Carbons. *Nanomaterials*, **2020**, 10,	5.4	6
46	Carbon adsorbents for methane storage: genesis, synthesis, porosity, adsorption. *Korean Journal of Chemical Engineering*, **2021**, 38, 276-291	2.8	6
45	Methane Adsorption on the Metal Organic Framework Structure Al-BTC. *Protection of Metals and Physical Chemistry of Surfaces*, **2019**, 55, 9-14	0.9	5
44	Monolithic microporous carbon adsorbent for low-temperature natural gas storage. *Adsorption*, **2019**, 25, 1559-1573	2.6	5
43	Thermodynamics of krypton adsorption on microporous carbon adsorbent at high pressures. *Russian Chemical Bulletin*, **2017**, 66, 607-613	1.7	5
42	Supramolecular microporous structures based on carbon nanotubes and coordinating cumene (C9H12) molecules. *Colloid Journal*, **2017**, 79, 701-706	1.1	5
41	Thermodynamic Behaviors of Adsorbed Methane Storage Systems Based on Nanoporous Carbon Adsorbents Prepared from Coconut Shells. *Nanomaterials*, **2020**, 10,	5.4	5
40	Self-organization of supramolecular microporous structures based on carbon nanotubes and benzene. *Colloid Journal*, **2016**, 78, 800-807	1.1	5
39	Hydrogen (H2) Adsorption in Model Carbon Adsorbents with Slitlike Micropores. *Protection of Metals and Physical Chemistry of Surfaces*, **2018**, 54, 754-762	0.9	5
38	Adsorption-Induced Deformation of Adsorbents. *Colloid Journal*, **2018**, 80, 578-586	1.1	5
37	Methane Adsorption in Microporous Carbon Adsorbent LCN Obtained by Thermochemical Synthesis from Lignocellulose. *Protection of Metals and Physical Chemistry of Surfaces*, **2019**, 55, 211-216	0.9	4
36	Methane Adsorption in Microporous Carbon Adsorbent with a Bimodal Pore Size Distribution. *Protection of Metals and Physical Chemistry of Surfaces*, **2020**, 56, 1-5	0.9	4
35	Measurements of Adsorption and Thermal Deformations of Microporous Carbon Adsorbents. *Measurement Techniques*, **2018**, 60, 1051-1057	0.4	4
34	Adsorption of Neon in Model Carbon Microporous Adsorbents with Slit-Like Micropores. *Russian Journal of Physical Chemistry A*, **2018**, 92, 552-558	0.7	4
33	Adsorption of n-pentane on a microporous carbon adsorbent with a narrow pore size distribution. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 184-190	0.9	4
32	Model Nanoporous Supramolecular Structures Based on Carbon Nanotubes and Hydrocarbons for Methane and Hydrogen Adsorption. *Colloid Journal*, **2018**, 80, 739-750	1.1	4

31	Synthesis and studies of thermal stability of NaK-, K-, Na-, and Li forms of LSX zeolite. *Protection of Metals and Physical Chemistry of Surfaces*, **2015**, 51, 767-772	0.9	3
30	Ethane adsorption on microporous carbon adsorbent with a wide pore size distribution. *Russian Chemical Bulletin*, **2019**, 68, 1838-1842	1.7	3
29	Carbon adsorbents used for gold recovery technology with cyanide. *Protection of Metals and Physical Chemistry of Surfaces*, **2014**, 50, 689-693	0.9	3
28	Xenon adsorption on microporous adsorbents at higher pressures. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 644-647	0.9	3
27	Adsorption Accumulation of Liquefied Natural Gas Vapors. *Protection of Metals and Physical Chemistry of Surfaces*, **2020**, 56, 897-903	0.9	3
26	Adsorption-Based Hydrogen Storage in Activated Carbons and Model Carbon Structures. *Reactions*, **2021**, 2, 209-226	1.5	3
25	Description of Adsorption-Stimulated Deformation of Microporous Adsorbents Based on Generalized Potential of Intermolecular Interactions (6, n). *Protection of Metals and Physical Chemistry of Surfaces*, **2016**, 52, 193-198	0.9	3
24	Methane Adsorption on Cu-BTC110 Metal-Organic Framework. *Russian Journal of Inorganic Chemistry*, **2019**, 64, 1507-1512	1.5	3
23	Deformation of AUK Adsorbent and Adsorbate Structure upon n-Octane Adsorption. *Colloid Journal*, **2019**, 81, 613-620	1.1	3
22	Functional Composite Adsorbents Based on Metal-Organic Frameworks in a Carbon Matrix Applied for Methane Storage. *Protection of Metals and Physical Chemistry of Surfaces*, **2019**, 55, 1080-1084	0.9	3
21	Wave sorbostriction of AP-B recuperated carbon adsorbent during adsorption of vapors of organic substances. *Protection of Metals and Physical Chemistry of Surfaces*, **2015**, 51, 49-56	0.9	2
20	Zr-Based Metal□Organic Nanoporous Adsorbents of High Density for Methane Storage. *Protection of Metals and Physical Chemistry of Surfaces*, **2020**, 56, 1114-1121	0.9	2
19	High-Density Carbon Adsorbents for Natural Gas Storage. *Colloid Journal*, **2020**, 82, 719-726	1.1	2
18	Estimation of adsorption of ethane on the superactive microporous carbon adsorbent using the theory of volume filling of micropores. *Russian Chemical Bulletin*, **2020**, 69, 2091-2096	1.7	2
17	Adsorption-Induced and Thermal Deformation of Microporous Carbon Adsorbent upon n-Octane Adsorption. *Colloid Journal*, **2019**, 81, 797-803	1.1	2
16	The influence of mechanical activation on the adsorption properties of powdered tungsten. *Protection of Metals and Physical Chemistry of Surfaces*, **2015**, 51, 81-84	0.9	1
15	Methane Adsorption on FBDC Metal□Organic Porous Structures at High Pressures. *Protection of Metals and Physical Chemistry of Surfaces*, **2020**, 56, 682-687	0.9	1
14	Carbon Nanoporous Adsorbents Prepared from Walnut Shell for Liquefied Natural Gas Vapor Recovery in Cryogenic Storage Systems. *Protection of Metals and Physical Chemistry of Surfaces*, **2020**, 56, 1122-1133	0.9	1

13	Peculiarities of Thermodynamic Behaviors of Xenon Adsorption on the Activated Carbon Prepared from Silicon Carbide. *Nanomaterials*, **2021**, 11,	5.4	1
12	Adsorption Properties of a Functional Porous Material Based on a Zn‐BTB Metal‐Organic Framework Structure. *Protection of Metals and Physical Chemistry of Surfaces*, **2022**, 58, 6-12	0.9	1
11	Sorbostriction of FAS-3 microporous carbon adsorbent upon vapor adsorption from a flow of nitrogen carrier gas. *Colloid Journal*, **2017**, 79, 773-778	1.1	0
10	Experimental study of heat transfer in adsorbed natural gas storage system filled with microporous monolithic active carbon. *Journal of Physics: Conference Series*, **2021**, 2116, 012085	0.3	0
9	ZrBDC-Based Functional Adsorbents for Small-Scale Methane Storage Systems. *Adsorption Science and Technology*, **2022**, 2022, 1-20	3.6	0
8	Thermodynamics of Methane Adsorption in a Microporous Carbon Adsorbent Prepared From Polymer Composition. *Protection of Metals and Physical Chemistry of Surfaces*, **2021**, 57, 883-889	0.9	0
7	Methane Adsorption on Microporous Carbon Adsorbent Prepared from Thermochemically Activated Wood. *Protection of Metals and Physical Chemistry of Surfaces*, **2021**, 57, 17-21	0.9	0
6	The MIL-125 Metal‐Organic Framework Structure for Adsorption-Based Accumulation of Methane and Hydrogen. *Protection of Metals and Physical Chemistry of Surfaces*, **2021**, 57, 672-679	0.9	0
5	Thermodynamics of methane adsorption on carbon adsorbent prepared from mineral coal. *Adsorption*, **2021**, 27, 1095	2.6	0
4	Adsorption of Carbon Dioxide onto Model Carbon Structures with Slitlike Micropores. *Protection of Metals and Physical Chemistry of Surfaces*, **2021**, 57, 1105-1114	0.9	0
3	Experimental study of the thermal management process at low-temperature circulating charging of an adsorbed natural gas storage system. *Journal of Physics: Conference Series*, **2021**, 2116, 012084	0.3	0
2	Supramolecular nanoporous carbon materials based on the arrays of carbon nanotubes, ordered by cyclic hydrocarbons for methane and hydrogen storage. *Materials Today: Proceedings*, **2018**, 5, 25911-25915	14	
1	Development of an approach to estimating the adsorption-induced deformation limit values of microporous carbons **2021**, 50-55		