Mikhail K Kaban

List of Publications by Year
in descending order

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84 papers	3,069 citations	126907 33 h-index	175258 52 g-index
101 all docs	101 docs citations	101 times ranked	2183 citing authors

#	Article	IF	Citations
1	EuCRUSTâ€07: A new reference model for the European crust. Geophysical Research Letters, 2008, 35, .	4.0	213
2	P- andS-velocity anomalies in the upper mantle beneath Europe from tomographic inversion of ISC data. Geophysical Journal International, 2009, 179, 345-366.	2.4	163
3	Density of the continental roots: compositional and thermal contributions. Earth and Planetary Science Letters, 2003, 209, 53-69.	4.4	161
4	Receiver function tomography of the central Tien Shan. Earth and Planetary Science Letters, 2004, 225, 131-146.	4.4	159
5	The North American upper mantle: Density, composition, and evolution. Journal of Geophysical Research, 2010, 115, .	3.3	123
6	A new isostatic model of the lithosphere and gravity field. Journal of Geodesy, 2004, 78, 368-385.	3.6	110
7	A new thermal and rheological model of the European lithosphere. Tectonophysics, 2009, 476, 478-495.	2.2	105
8	Nature of the crust-mantle transition zone and the thermal state of the upper mantle beneath Iceland from gravity modelling. Geophysical Journal International, 2002, 149, 281-299.	2.4	99
9	A global isostatic gravity model of the Earth. Geophysical Journal International, 1999, 136, 519-536.	2.4	92
10	Melting at the base of the Greenland ice sheet explained by Iceland hotspot history. Nature Geoscience, 2016, 9, 366-369.	12.9	91
11	High resolution regional crustal models from irregularly distributed data: Application to Asia and adjacent areas. Tectonophysics, 2013, 602, 55-68.	2.2	77
12	Deep Europe today: geophysical synthesis of the upper mantle structure and lithospheric processes over 3.5 Ga. Geological Society Memoir, 2006, 32, 11-41.	1.7	68
13	Global strength and elastic thickness of the lithosphere. Global and Planetary Change, 2012, 90-91, 51-57.	3.5	66
14	The effective elastic thickness of the continental lithosphere: Comparison between rheological and inverse approaches. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	62
15	Variations of the effective elastic thickness over China and surroundings and their relation to the lithosphere dynamics. Earth and Planetary Science Letters, 2013, 363, 61-72.	4.4	55
16	An integrated gravity model for Europe's crust and upper mantle. Earth and Planetary Science Letters, 2010, 296, 195-209.	4.4	53
17	Crust and mantle of the Tien Shan from data of the receiver function tomography. Izvestiya, Physics of the Solid Earth, 2006, 42, 639-651.	0.9	51
18	Global model for the lithospheric strength and effective elastic thickness. Tectonophysics, 2013, 602, 78-86.	2.2	51

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19	Density, temperature, and composition of the North American lithosphereâ€"New insights from a joint analysis of seismic, gravity, and mineral physics data: 1. Density structure of the crust and upper mantle. Geochemistry, Geophysics, Geosystems, 2014, 15, 4781-4807.	2.5	50
20	Variations of the lithospheric strength and elastic thickness in <scp>N</scp>orth <scp>A</scp>merica. Geochemistry, Geophysics, Geosystems, 2015, 16, 2197-2220.	2.5	48
21	How rigid is Europe's lithosphere?. Geophysical Research Letters, 2009, 36, .	4.0	47
22	Cratonic root beneath North America shifted by basal drag from the convecting mantle. Nature Geoscience, 2015, 8, 797-800.	12.9	47
23	Density, temperature, and composition of the <scp>N</scp>orth <scp>A</scp>merican lithosphereâ€"New insights from a joint analysis of seismic, gravity, and mineral physics data: 2. Thermal and compositional model of the upper mantle. Geochemistry, Geophysics, Geosystems, 2014, 15, 4808-4830.	2.5	45
24	Geodynamics, seismicity, and seismic hazards of the Caucasus. Earth-Science Reviews, 2020, 207, 103222.	9.1	45
25	Heat flux variations beneath central Greenlandâ€™s ice due to anomalously thin lithosphere. Nature Geoscience, 2013, 6, 746-750.	12.9	43
26	3D density model of the upper mantle of Asia based on inversion of gravity and seismic tomography data. Geochemistry, Geophysics, Geosystems, 2016, 17, 4457-4477.	2.5	43
27	NACr14: A 3D model for the crustal structure of the North American Continent. Tectonophysics, 2014, 631, 65-86.	2.2	42
28	3D strength and gravity anomalies of the European lithosphere. Earth and Planetary Science Letters, 2007, 263, 56-73.	4.4	41
29	Density structure of the lithosphere in the southwestern United States and its tectonic significance. Journal of Geophysical Research, 2001, 106, 721-739.	3.3	40
30	Contrasts of seismic velocity, density and strength across the Moho. Tectonophysics, 2013, 609, 437-455.	2.2	39
31	Effective elastic thickness of the Arabian plate: Weak shield versus strong platform. Geophysical Research Letters, 2015, 42, 3298-3304.	4.0	38
32	Threeâ€dimensional density model of the upper mantle in the Middle East: Interaction of diverse tectonic processes. Journal of Geophysical Research: Solid Earth, 2016, 121, 5349-5364.	3.4	38
33	Density inhomogeneities, isostasy and flexural rigidity of the lithosphere in the Transcaspian region. Tectonophysics, 1994, 240, 281-297.	2.2	36
34	Oceanic upper mantle structure from experimental scaling ofVSand density at different depths. Geophysical Journal International, 2001, 147, 199-214.	2.4	34
35	Isostatic Model and Isostatic Gravity Anomalies of the Arabian Plate and Surroundings. Pure and Applied Geophysics, 2016, 173, 1211-1221.	1.9	33
36	A gravity model of the North Eurasia crust and upper mantle: 1. Mantle and isostatic residual gravity anomalies. Russian Journal of Earth Sciences, 2001, 3, 125-144.	0.7	33

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37	3â€D Density, Thermal, and Compositional Model of the Antarctic Lithosphere and Implications for Its Evolution. Geochemistry, Geophysics, Geosystems, 2019, 20, 688-707.	2.5	30
38	Variations of the effective elastic thickness reveal tectonic fragmentation of the Antarctic lithosphere. Tectonophysics, 2018, 746, 412-424.	2.2	27
39	Reconsidering Effective Elastic Thickness Estimates by Incorporating the Effect of Sediments: A Case Study for Europe. Geophysical Research Letters, 2018, 45, 9523-9532.	4.0	23
40	Efficient 3â€D Largeâ€Scale Forward Modeling and Inversion of Gravitational Fields in Spherical Coordinates With Application to Lunar Mascons. Journal of Geophysical Research: Solid Earth, 2019, 124, 4157-4173.	3.4	22
41	Moho Beneath Tibet Based on a Joint Analysis of Gravity and Seismic Data. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008849.	2.5	22
42	Mechanical and thermal effects of floating continents on the global mantle convection. Physics of the Earth and Planetary Interiors, 2008, 171, 313-322.	1.9	20
43	Elastic thickness, mechanical anisotropy and deformation of the southeastern Tibetan Plateau. Tectonophysics, 2014, 637, 45-56.	2.2	18
44	Effect of Decoupling of Lithospheric Plates on the Observed Geoid. Surveys in Geophysics, 2014, 35, 1361-1373.	4.6	18
45	Diverse Continental Subduction Scenarios Along the Arabiaâ€Eurasia Collision Zone. Geophysical Research Letters, 2018, 45, 6898-6906.	4.0	17
46	3â€D Density Structure of the Lunar Mascon Basins Revealed by a Highâ€Efficient Gravity Inversion of the GRAIL Data. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006841.	3.6	16
47	A gravity model of the north Eurasia crust and upper mantle: 2. The Alpine-Mediterranean foldbelt and adjacent structures of the southern former USSR. Russian Journal of Earth Sciences, 2002, 4, 19-33.	0.7	16
48	Increased water storage of Lake Qinghai during 2004â€“2012 from GRACE data, hydrological models, radar altimetry and in situ measurements. Geophysical Journal International, 2018, 212, 679-693.	2.4	15
49	Ductile crustal flow in Europe's lithosphere. Earth and Planetary Science Letters, 2011, 312, 254-265.	4.4	14
50	Density structure of the mantle transition zone and the dynamic geoid. Journal of Geodynamics, 2012, 59-60, 183-192.	1.6	14
51	The Challenge of Spatial Resolutions for GRACE-Based Estimates Volume Changes of Larger Man-Made Lake: The Case of Chinaâ€™s Three Gorges Reservoir in the Yangtze River. Remote Sensing, 2019, 11, 99.	4.0	14
52	Thermal and Compositional Anomalies of the Australian Upper Mantle From Seismic and Gravity Data. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009305.	2.5	14
53	Density Structure, Isostatic Balance and Tectonic Models of the Central Tien Shan. Surveys in Geophysics, 2014, 35, 1375-1391.	4.6	13
54	Strength and elastic thickness variations in the Arabian Plate: A combination of temperature, composition and strain rates of the lithosphere. Tectonophysics, 2018, 746, 398-411.	2.2	13

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55	Mantle Convection Patterns Reveal the Mechanism of the Red Sea Rifting. Tectonics, 2020, 39, e2019TC005829.	2.8	13
56	Simulation of active tectonic processes for a convecting mantle with moving continents. Geophysical Journal International, 2006, 164, 611-623.	2.4	12
57	Importance of lateral viscosity variations in the whole mantle for modelling of the dynamic geoid and surface velocities. Journal of Geodynamics, 2007, 43, 262-273.	1.6	12
58	Revising the spectral method as applied to modeling mantle dynamics. Geochemistry, Geophysics, Geosystems, 2013, 14, 3691-3702.	2.5	12
59	Upper-mantle density structure in the Philippine Sea and adjacent region and its relation to tectonics. Geophysical Journal International, 2019, 219, 945-957.	2.4	12
60	Importance of the Decompensative Correction of the Gravity Field for Study of the Upper Crust: Application to the Arabian Plate and Surroundings. Pure and Applied Geophysics, 2017, 174, 349-358.	1.9	11
61	Giant Quasi-Ring Mantle Structure in the Africanâ€“Arabian Junction: Results Derived from the Geologicalâ€“Geophysical Data Integration. Geotectonics, 2021, 55, 58-82.	0.9	11
62	Decompensative Gravity Anomalies Reveal the Structure of the Upper Crust of Antarctica. Pure and Applied Geophysics, 2019, 176, 4401-4414.	1.9	10
63	Insights into the architecture and evolution of the Southern and Middle Urals from gravity and magnetic data. Geophysical Monograph Series, 2002, , 49-65.	0.1	9
64	Factors responsible for the high position of the Siberian platform. Izvestiya, Physics of the Solid Earth, 2006, 42, 987-998.	0.9	9
65	Density structure and isostasy of the lithosphere in Egypt and their relation to seismicity. Solid Earth, 2018, 9, 833-846.	2.8	9
66	A New Moho Map for North-Eastern Eurasia Based on the Analysis of Various Geophysical Data. Pure and Applied Geophysics, 0, , 1.	1.9	8
67	Regional Geophysics of the Caribbean and Northern South America: Implications for Tectonics. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	8
68	Downscaling GRACE Predictions of the Crustal Response to the Presentâ€Day Mass Changes in Greenland. Journal of Geophysical Research: Solid Earth, 2019, 124, 5134-5152.	3.4	7
69	A Thermoâ€Compositional Model of the Cratonic Lithosphere of South America. Geochemistry, Geophysics, Geosystems, 2021, 22, e2020GC009307.	2.5	7
70	Strength variations of the Australian continent: Effects of temperature, strain rate, and rheological changes. Global and Planetary Change, 2020, 195, 103322.	3.5	6
71	Structure and Density of Sedimentary Basins in the Southern Part of the East-European Platform and Surrounding Area. Applied Sciences (Switzerland), 2021, 11, 512.	2.5	6
72	Thermal and Rheological Model of the European Lithosphere. , 2009, , 71-101.		5

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73	The Congo Basin: Subsurface structure interpreted using potential field data and constrained by seismic data. Global and Planetary Change, 2021, 205, 103611.	3.5	4
74	A Thermoâ€Compositional Model of the African Cratonic Lithosphere. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	4
75	Sedimentary basins of the eastern Asia Arctic zone: new details on their structure revealed by decompensative gravity anomalies. Solid Earth, 2021, 12, 2773-2788.	2.8	4
76	Effects of the postperovskite phase change on the observed geoid. Geophysical Research Letters, 2015, 42, 44-52.	4.0	3
77	Thickness of sediments in the Congo basin based on the analysis of decompensative gravity anomalies. Journal of African Earth Sciences, 2021, 179, 104201.	2.0	3
78	3D Crustal Model of Western and Central Europe as a Basis for Modelling Mantle Structure. , 2009, , 39-69.		3
79	On a spectral method of solving the Stokes equation. Izvestiya, Physics of the Solid Earth, 2008, 44, 18-25.	0.9	2
80	The use of the A10-022 absolute gravimeter to construct the relative gravimeter calibration baselines in China. Metrologia, 2014, 51, 203-211.	1.2	1
81	Dynamic Topography as Reflected in the Global Gravity Field. , 2005, , 199-204.		0
82	Gravity Anomalies, Interpretation. Encyclopedia of Earth Sciences Series, 2021, , 585-591.	0.1	0
83	10.1007/s11486-008-1003-4. , 2010, 44, 18.		0
84	The integrative density model of the crust and upper mantle of Eurasia: representation in GIS environment. Russian Journal of Earth Sciences, 2019, 19, 1-15.	0.7	0