Marat Gafurov

List of Publications by Year
in descending order

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		218592	345118
116	1,812	26	36
papers	citations	h-index	g-index

118	118	118	1324
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquid state DNP using a 260 GHz high power gyrotron. Physical Chemistry Chemical Physics, 2010, 12, 5786.	1.3	99
2	High-Field Dynamic Nuclear Polarization in Aqueous Solutions. Journal of the American Chemical Society, 2009, 131, 6090-6092.	6.6	86
3	High-Field DNP Spectrometer for Liquids. Applied Magnetic Resonance, 2008, 34, 289.	0.6	54
4	Toward the Asphaltene Structure by Electron Paramagnetic Resonance Relaxation Studies at High Fields (3.4 T). Energy & Fuels, 2016, 30, 6942-6946.	2.5	45
5	Electron Paramagnetic Resonance Study of Rotational Mobility of Vanadyl Porphyrin Complexes in Crude Oil Asphaltenes: Probing the Effect of Thermal Treatment of Heavy Oils. Energy & Fuels, 2014, 28, 6683-6687.	2.5	44
6	EPR study of spectra transformations of the intrinsic vanadyl-porphyrin complexes in heavy crude oils with temperature to probe the asphaltenes' aggregation. Journal of Petroleum Science and Engineering, 2018, 166, 363-368.	2.1	44
7	Dynamic nuclear polarization of water by a nitroxide radical: rigorous treatment of the electron spin saturation and comparison with experiments at 9.2 Tesla. Physical Chemistry Chemical Physics, 2009, 11, 6638.	1.3	42
8	Combination of EPR Measurements and DFT Calculations To Study Nitrate Impurities in the Carbonated Nanohydroxyapatite. Journal of Physical Chemistry A, 2014, 118, 1519-1526.	1.1	41
9	Quantitative Analysis of Lewis Acid Centers of Î³-Alumina by Using EPR of the Adsorbed Anthraquinone as a Probe Molecule: Comparison with the Pyridine, Carbon Monoxide IR, and TPD of Ammonia. Journal of Physical Chemistry C, 2015, 119, 27410-27415.	1.5	41
10	Tricalcium Phosphate Ceramics Doped with Silver, Copper, Zinc, and Iron (III) Ions in Concentrations of Less Than 0.5Âwt.% for Bone Tissue Regeneration. BioNanoScience, 2017, 7, 434-438.	1.5	41
11	In Situ Identification of Various Structural Features of Vanadyl Porphyrins in Crude Oil by High-Field (3.4 T) Electronâ€“Nuclear Double Resonance Spectroscopy Combined with Density Functional Theory Calculations. Energy & Fuels, 2017, 31, 1243-1249.	2.5	39
12	First DNP Results from a Liquid Water-TEMPOL Sample at 400 MHz and 260 GHz. Applied Magnetic Resonance, 2008, 34, 399.	0.6	37
13	Protonâ€“Radical Interaction in Crude Oilâ€”A Combined NMR and EPR Study. Energy & Fuels, 2018, 32, 11261-11268.	2.5	37
14	Sic Parvis Magna: Manganese-Substituted Tricalcium Phosphate and Its Biophysical Properties. ACS Biomaterials Science and Engineering, 2019, 5, 6632-6644.	2.6	37
15	Mn-Catalyzed Oxidation of Heavy Oil in Porous Media: Kinetics and Some Aspects of the Mechanism. Energy & Fuels, 2016, 30, 7731-7737.	2.5	35
16	Stomach Cancer: Interconnection between the Redox State, Activity of MMP-2, MMP-9 and Stage of Tumor Growth. Cancer Microenvironment, 2016, 9, 27-32.	3.1	34
17	EPR as a complementary tool for the analysis of low-temperature oxidation reactions of crude oils. Journal of Petroleum Science and Engineering, 2018, 169, 673-682.	2.1	31
18	Conventional, pulsed and high-field electron paramagnetic resonance for studying metal impurities in calcium phosphates of biogenic and synthetic origins. Journal of Magnetism and Magnetic Materials, 2019, 470, 109-117.	1.0	31

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19	EPR Characterization of a Rigid Bis-TEMPOâ€“Bis-Ketal for Dynamic Nuclear Polarization. Applied Magnetic Resonance, 2010, 37, 505-514.	0.6	30
20	Pb3+ radiation defects in Ca9Pb(PO4)6(OH)2 hydroxyapatite nanoparticles studied by high-field (W-band) EPR and ENDOR. Physical Chemistry Chemical Physics, 2012, 14, 2246.	1.3	30
21	The Interplay of manganese and nitrate in hydroxyapatite nanoparticles as revealed by pulsed EPR and DFT. Physical Chemistry Chemical Physics, 2015, 17, 20331-20337.	1.3	30
22	The Low-Field Pulsed Mode Dynamic Nuclear Polarization in the Pentavalent Chromium Complex and Crude Oils. Applied Magnetic Resonance, 2014, 45, 1275-1287.	0.6	29
23	Native Vanadyl Complexes in Crude Oil as Polarizing Agents for In Situ Proton Dynamic Nuclear Polarization. Energy & Fuels, 2019, 33, 10923-10932.	2.5	29
24	Temperature Dependence of the Proton Overhauser DNP Enhancements on Aqueous Solutions of Fremyâ€™s Salt Measured in a Magnetic Field of 9.2ÂT. Applied Magnetic Resonance, 2012, 43, 119-128.	0.6	27
25	A DFT, X- and W-band EPR and ENDOR Study of Nitrogen-Centered Species in (Nano)Hydroxyapatite. Applied Magnetic Resonance, 2014, 45, 1189-1203.	0.6	27
26	Nitrogen-containing species in the structure of the synthesized nano-hydroxyapatite. JETP Letters, 2014, 99, 196-203.	0.4	27
27	Coherence times and Rabi oscillations in CaWO4:Cr5+ crystal. Journal of Magnetic Resonance, 2011, 209, 61-68.	1.2	26
28	Influence of Al on the Structure and in Vitro Behavior of Hydroxyapatite Nanopowders. Journal of Physical Chemistry B, 2019, 123, 9143-9154.	1.2	26
29	EPR study of some rare-earth ions (Dy3+, Tb3+, and Nd3+) in YBa2Cu3O6-compound. Journal of Magnetic Resonance, 2003, 161, 210-214.	1.2	25
30	Coherent spin manipulations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Yb</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math>- and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>X</mml:mi></mml:math>-and<mml:math xmlns:mml="http://www.w3.or. Physical Review B, 2009, 79, .	1.1	25
31	Mesoporous Iron(III)-Doped Hydroxyapatite Nanopowders Obtained via Iron Oxalate. Nanomaterials, 2021, 11, 811.	1.9	25
32	Deep Insights into Heavy Oil Upgrading Using Supercritical Water by a Comprehensive Analysis of GC, GCâ€“MS, NMR, and SEMâ€“EDX with the Aid of EPR as a Complementary Technical Analysis. ACS Omega, 2021, 6, 135-147.	1.6	25
33	In Vitro Properties of Manganese-Substituted Tricalcium Phosphate Coatings for Titanium Biomedical Implants Deposited by Arc Plasma. Materials, 2020, 13, 4411.	1.3	24
34	The Role of Nanodispersed Catalysts in Microwave Application during the Development of Unconventional Hydrocarbon Reserves: A Review of Potential Applications. Processes, 2021, 9, 420.	1.3	23
35	Changes in mitochondrial functioning with electromagnetic radiation of ultra high frequency as revealed by electron paramagnetic resonance methods. International Journal of Radiation Biology, 2014, 90, 357-362.	1.0	21
36	Coherent spin dynamics in a gadolinium-doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>CaW</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>crystal. Physical Review B, 2017, 95, .	1.1	21

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37	Qualitative and Quantitative Analysis of Heavy Crude Oil Samples and Their SARA Fractions with 13C Nuclear Magnetic Resonance. Processes, 2020, 8, 995.	1.3	21
38	Debye temperature in YBa2Cu3Ox as measured from the electron spinâ€“lattice relaxation of doped Yb3+ ions. Physica C: Superconductivity and Its Applications, 2001, 349, 30-34.	0.6	19
39	Iron-Doped Mesoporous Powders of Hydroxyapatite as Molybdenum-Impregnated Catalysts for Deep Oxidative Desulfurization of Model Fuel: Synthesis and Experimental and Theoretical Studies. Journal of Physical Chemistry C, 2021, 125, 11604-11619.	1.5	19
40	Electron spin-lattice relaxation of Er3+-ions in Y0.99Er0.01Ba2Cu3Ox. Physica C: Superconductivity and Its Applications, 1998, 307, 61-66.	0.6	18
41	Pulsed NMR spectrometer with dynamic nuclear polarization for weak magnetic fields. Magnetic Resonance in Solids, 2019, 21, .	0.2	18
42	Paramagnetic Manganese in the Atherosclerotic Plaque of Carotid Arteries. BioMed Research International, 2016, 2016, 1-7.	0.9	17
43	Changes in Heavy Oil Saturates and Aromatics in the Presence of Microwave Radiation and Iron-Based Nanoparticles. Catalysts, 2022, 12, 514.	1.6	15
44	Electron Paramagnetic Resonance and Electron Nuclear Double Resonance Study of the Paramagnetic Complexes of Anthraquinone on the Surface of Î³-Al₂O₃. Journal of Physical Chemistry C, 2014, 118, 14998-15003.	1.5	14
45	Study of Organic Self-Assembled Nanosystems by Means of High-Frequency ESR/ENDOR: The Case of Oil Asphaltenes. Russian Journal of General Chemistry, 2018, 88, 2374-2380.	0.3	14
46	Molecular Dynamics and Proton Hyperpolarization via Synthetic and Crude Oil Porphyrin Complexes in Solid and Solution States. Langmuir, 2021, 37, 6783-6791.	1.6	14
47	Radiation-Induced Stable Radicals in Calcium Phosphates: Results of Multifrequency EPR, EDNMR, ESEEM, and ENDOR Studies. Applied Sciences (Switzerland), 2021, 11, 7727.	1.3	14
48	Platform-to-platform sample transfer, distribution, dilution, and dosing via electrothermal vaporization and electrostatic deposition. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 737-748.	1.5	13
49	Study of the effects of hydroxyapatite nanocrystal codoping by pulsed electron paramagnetic resonance methods. Physics of the Solid State, 2016, 58, 469-474.	0.2	13
50	Study of Electronâ€“Nuclear Interactions in Doped Calcium Phosphates by Various Pulsed EPR Spectroscopy Techniques. ACS Omega, 2021, 6, 25338-25349.	1.6	11
51	Copper-substituted tricalcium phosphates. Doklady Chemistry, 2016, 471, 384-387.	0.2	10
52	Metallo-Supramolecular Coordination Polymers Based on Amidopyridine Derivatives of Pillar[5]arene and Cu(II) and Pd(II) Cations: Synthesis and Recognition of Nitroaromatic Compounds. Langmuir, 2021, 37, 2942-2953.	1.6	10
53	Incorporation of Iron(II) and (III) in Hydroxyapatiteâ€”A Theoretical Study. Crystals, 2021, 11, 1219.	1.0	10
54	EPR of Radiation-Induced Nitrogen Centers in Hydroxyapatite: New Approaches to the Study of Electron-Nuclear Interactions. Russian Journal of Coordination Chemistry/Koordinatsionnaya Khimiya, 2020, 46, 729-737.	0.3	10

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55	Self-Healing Thiolated Pillar[5]arene Films Containing Moxifloxacin Suppress the Development of Bacterial Biofilms. Nanomaterials, 2022, 12, 1604.	1.9	10
56	The improved textural properties, thermal stability, and cytocompatibility of mesoporous hydroxyapatite by Mg2+ doping. Materials Chemistry and Physics, 2022, 289, 126461.	2.0	10
57	EPR of Yb3+ ions in Ba1â^'xLaxF2+x mixed crystals. Applied Magnetic Resonance, 2005, 28, 41-53.	0.6	9
58	Temperature dependence of the EPR linewidth of Yb3+ ions in Y0.99Yb0.01Ba2Cu3OX (6 â‰ X â‰ 7) compounds: evidence for an anomaly near the superconducting transition. Superconductor Science and Technology, 2005, 18, 352-355.	1.8	9
59	Electron Paramagnetic Resonance Study of Tumor Affected Bone Marrow. Cancer Microenvironment, 2013, 6, 273-276.	3.1	9
60	Coherent manipulation of dipolar coupled spins in an anisotropic environment. Physical Review B, 2014, 90, .	1.1	9
61	Electron Paramagnetic Resonance in the Experimental Oncology: Implementation Examples of the Conventional Approaches. BioNanoScience, 2016, 6, 431-436.	1.5	9
62	Superhyperfine structure of the ESR spectra of Gd3+ impurity ions in LiYF4 double fluoride. Physics of the Solid State, 2017, 59, 564-568.	0.2	9
63	Colorectal Cancer and Mitochondrial Dysfunctions of the Adjunct Adipose Tissues: A Case Study. BioMed Research International, 2018, 2018, 1-7.	0.9	9
64	Rectal Cancer: Redox State of Venous Blood and Tissues of Blood Vessels from Electron Paramagnetic Resonance and Its Correlation with the Five-Year Survival. BioMed Research International, 2018, 2018, 1-7.	0.9	9
65	High-Field (3.4â€‰T) ENDOR Investigation of Asphaltenes in Native Oil and Vanadyl Complexes by Asphaltene Adsorption on Alumina Surface. Geofluids, 2019, 2019, 1-9.	0.3	9
66	An electrothermal vaporization unit with axially focusing convection upstream and influence of modifiers. Part I: Experimental. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 231-241.	1.5	8
67	Superoxide- and NO-Dependent Mechanisms of the Reprogramming of Bone Marrow Cells by Tumor Cells. Applied Magnetic Resonance, 2014, 45, 1261-1273.	0.6	7
68	Phonon Spectrum in Hydroxyapatite: Calculations and EPR Study at Low Temperatures. Journal of Low Temperature Physics, 2016, 185, 627-632.	0.6	7
69	Effect of the Beryllium Acceptor Impurity upon the Optical Properties of Single-Crystal AlN. Semiconductors, 2020, 54, 278-281.	0.2	7
70	Study of radiation-induced stable radicals in synthetic octacalcium phosphate by pulsed EPR. Magnetic Resonance in Solids, 2019, 21, .	0.2	7
71	Investigation of atherosclerotic plaque by high-frequency EPR. Journal of Physics: Conference Series, 2013, 478, 012002.	0.3	6
72	Low-temperature thermal decomposition of heavy petroleum distillates: interconnection between the electrical properties and concentration of paramagnetic centres. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012007.	0.2	6

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73	W-Band ENDOR of Light-Induced PPerAcr Anion Radicals in Double-Crystalline Donorâ€“Bridgeâ€“Acceptor P3HT-b-PPerAcr Block Copolymer in Frozen Solution: Experimental and DFT Study. Journal of Physical Chemistry C, 2018, 122, 22829-22837.	1.5	6
74	Using DFT to Calculate the Parameters of the Crystal Field in Mn2+ Doped Hydroxyapatite Crystals. Crystals, 2021, 11, 1050.	1.0	6
75	Application of pulsed and high-frequency electron paramagnetic resonance techniques to study petroleum disperse systems. Georesursy, 2020, 22, 2-14.	0.3	6
76	Determination of pores properties in rocks by means of helium-3 NMR: A case study of oil-bearing arkosic conglomerate from North belt of crude oil, Republic of Cuba. Journal of Petroleum Science and Engineering, 2022, 210, 110010.	2.1	6
77	Intensity of the EPR spectrum in quenched samples of Yba2Cu3Ox compounds. Physics of the Solid State, 1997, 39, 374-377.	0.2	5
78	A study of hydroxyapatite nanocrystals by the multifrequency EPR and ENDOR spectroscopy methods. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2014, 116, 715-720.	0.2	5
79	Superhyperfine Structure of the EPR Spectra of Nd3+ Impurity Ions in Fluorite CaF2. Physics of the Solid State, 2018, 60, 912-915.	0.2	5
80	Spectra and relaxation of electronic excitations in CsCdBr 3 :Yb3+ and CsCdBr 3 :Nd3+ monocrystals. , 2002, , .		4
81	Inhomogeneity of the intrinsic magnetic field in superconducting YBa2Cu3OXcompounds as revealed by a rare-earth EPR probe. Superconductor Science and Technology, 2005, 18, 1183-1189.	1.8	4
82	260 GHz quasioptical setup for EPR and DNP experiments on the 9.2 Tesla DNP/NMR/EPR spectrometer. , 2010, , .		4
83	Superhyperfine structure of the EPR spectra of impurity ions in the LiYF4 : Nd3+ system doped by 143Nd isotopes. Physics of the Solid State, 2015, 57, 2400-2403.	0.2	4
84	Conventional electron paramagnetic resonance of Mn²⁺ in synthetic hydroxyapatite at different concentrations of the doped manganese. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012006.	0.2	4
85	Influence of the Chemical Modification of the Nanodiamond Surface on Electron Paramagnetic Resonance/Electron-Nuclear Double Resonance Spectra of Intrinsic Nitrogen Defects. Journal of Physical Chemistry C, 2019, 123, 22384-22389.	1.5	4
86	EPR and double resonances in study of diamonds and nanodiamonds. Experimental Methods in the Physical Sciences, 2019, 50, 83-113.	0.1	4
87	Redox state of adipose tissue for patients with gastric cancer and its connection with the body mass index and distance from the tumor. Obesity Research and Clinical Practice, 2020, 14, 34-38.	0.8	4
88	Probing the surface of synthetic opals with the vanadyl containing crude oil by using EPR and ENDOR techniques. Magnetic Resonance in Solids, 2019, 21, .	0.2	4
89	Perspective of zero-field ODMR to study nano-biological systems. Journal of Physics: Conference Series, 2013, 478, 012001.	0.3	3
90	Connection Between the Carotid Plaque Instability and Paramagnetic Properties of the Intrinsic Mn2+ Ions. BioNanoScience, 2016, 6, 558-560.	1.5	3

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91	Radiation induced paramagnetic radicals in synthetic octacalcium phosphate. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012018.	0.2	3
92	Structural dynamics of a spinlabeled ribosome elongation factor P (EF-P) from Staphylococcus aureus by EPR spectroscopy. SN Applied Sciences, 2019, 1, 1.	1.5	3
93	Criteria for Carotid Atherosclerotic Plaque Instability. Annals of Vascular Surgery, 2021, 72, 340-349.	0.4	3
94	Coherence times of Ce3+ spin states in CaWO4 crystal. Magnetic Resonance in Solids, 2019, 21, .	0.2	3
95	Electron spin resonance with g eff â‰ˆ 4.2 in YBa2Cu3O6.35. Model of chain copper-oxygen fragments. Journal of Experimental and Theoretical Physics, 2000, 90, 363-369.	0.2	2
96	EPR study of clusters of rare-earth ions in mixed fluoride crystals. Optics and Spectroscopy (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.2	2
97	Coherent control of electron-nuclear states of rare-earth ions in crystals using radio-frequency and microwave radiation. EPJ Web of Conferences, 2018, 195, 06003.	0.1	2
98	Study of the oxidized and non- oxidized bitumen modified with additive Â«AdgezolinÂ» by using electron paramagnetic resonance. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012004.	0.2	2
99	Preliminary estimating the contemporary sedimentation trend in dry valley bottoms of first-order catchments of different landscape zones of the Russian Plain using the137Cs as a chronomarker. IOP Conference Series: Earth and Environmental Science, 2018, 107, 012022.	0.2	2
100	Synthesis and study of the synthetic hydroxyapatite doped with aluminum. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012017.	0.2	2
101	Distribution of vanadyl complexes and free radicals in asphaltenes fractions from electron paramagnetic resonance. IOP Conference Series: Earth and Environmental Science, 2019, 282, 012008.	0.2	2
102	Multifrequency (9 and 95 GHz) EPR study of stable radicals in asphaltenes fractions of oils and bitumen. IOP Conference Series: Earth and Environmental Science, 2019, 282, 012016.	0.2	2
103	Study of the Structures of the Tetragonal Paramagnetic Centers in the Mixed Fluorite Crystals with Rare-Earth Ions by EPR. Applied Magnetic Resonance, 2014, 45, 1147-1156.	0.6	1
104	Studying metal impurities (Mn2+, Cu2+, Fe3+) in calcium phosphates by electron paramagnetic resonance. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012002.	0.2	1
105	W-band EPR of vanadyl complexes aggregates on the surface of Al2O3. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012005.	0.2	1
106	Redox Status of a Metastatic Microenvironment in the Liver of Patients with Colorectal Cancer from EPR. Applied Magnetic Resonance, 2019, 50, 391-402.	0.6	1
107	Multipurpose Portable Q-Band Bridge. Magnetic Resonance in Solids, 2021, 23, .	0.2	1
108	EPR Detection of DNA Interaction with 3-Carboxy-proxyl-Labelled Recombinant Human Histone H1.3. BioNanoScience, 2017, 7, 109-111.	1.5	0

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109	Mims electron-nuclear double resonance in LiYF4:Ce3+ crystal. IOP Conference Series: Earth and Environmental Science, 2018, 155, 012003.	0.2	0
110	Using EPR Technique for Monitoring of ISC Processes and Reservoirs Temperature in Enhanced Oil Recovery. , 2018, , .		0
111	Overhauser-driven dynamic nuclear polarization for petroleum systems: literature survey and comparing with experiments. IOP Conference Series: Earth and Environmental Science, 2019, 282, 012018.	0.2	0
112	Lattice distortions in hydroxyapatites with size as follows from the electronic relaxation time measurements. IOP Conference Series: Earth and Environmental Science, 2019, 282, 012019.	0.2	0
113	Nanosized iron-substituted hydroxyapatites. IOP Conference Series: Materials Science and Engineering, 2020, 747, 012066.	0.3	0
114	EPR of single Yb3+ ions in CsCdBr3 monocrystals. Magnetic Resonance in Solids, 2019, 21, .	0.2	0
115	Modernization of the X-band EPR spectrometer Bruker ElexSys E580 for dynamic nuclear polarization. Magnetic Resonance in Solids, 2021, 23, .	0.2	0
116	Professor Yury Bunkov. Magnetic Resonance in Solids, 2020, 22, .	0.2	0