

# Oleg G Salnikov

## List of Publications by Year in descending order

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60  
papers

1,690  
citations

257450

24  
h-index

302126

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g-index

67  
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docs citations

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times ranked

1073  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas-Phase NMR of Hyperpolarized Propane with $^1\text{H}$ -to- $^{13}\text{C}$ Polarization Transfer by PH-INEPT. Applied Magnetic Resonance, 2022, 53, 653-669.	1.2	6
2	Mechanisms of Methylenecyclobutane Hydrogenation over Supported Metal Catalysts Studied by Parahydrogen-Induced Polarization Technique. ChemPhysChem, 2022, 23, .	2.1	5
3	$^{15}\text{N}$ NMR Hyperpolarization of Radiosensitizing Antibiotic Nimorazole by Reversible Parahydrogen Exchange in Microtesla Magnetic Fields. Angewandte Chemie, 2021, 133, 2436-2443.	2.0	6
4	$^{15}\text{N}$ NMR Hyperpolarization of Radiosensitizing Antibiotic Nimorazole by Reversible Parahydrogen Exchange in Microtesla Magnetic Fields. Angewandte Chemie - International Edition, 2021, 60, 2406-2413.	13.8	33
5	Low-Flammable Parahydrogen-Polarized MRI Contrast Agents. Chemistry - A European Journal, 2021, 27, 2774-2781.	3.3	8
6	Heterogeneous Parahydrogen-Induced Polarization of Diethyl Ether for Magnetic Resonance Imaging Applications. Chemistry - A European Journal, 2021, 27, 1316-1322.	3.3	12
7	Frontispiece: Heterogeneous Parahydrogen-Induced Polarization of Diethyl Ether for Magnetic Resonance Imaging Applications. Chemistry - A European Journal, 2021, 27, .	3.3	0
8	Synthesis and $^{15}\text{N}$ NMR Signal Amplification by Reversible Exchange of [ $^{15}\text{N}$ ]Dalfampridine at Microtesla Magnetic Fields. ChemPhysChem, 2021, 22, 960-967.	2.1	8
9	Synthetic Approaches for $^{15}\text{N}$ -Labeled Hyperpolarized Heterocyclic Molecular Imaging Agents for $^{15}\text{N}$ NMR Signal Amplification by Reversible Exchange in Microtesla Magnetic Fields. Chemistry - A European Journal, 2021, 27, 9727-9736.	3.3	9
10	Heterogeneous $^1\text{H}$ and $^{13}\text{C}$ Parahydrogen-Induced Polarization of Acetate and Pyruvate Esters. ChemPhysChem, 2021, 22, 1389-1396.	2.1	9
11	Low-Cost High-Pressure Clinical-Scale 50% Parahydrogen Generator Using Liquid Nitrogen at 77 K. Analytical Chemistry, 2021, 93, 8476-8483.	6.5	20
12	Heterogeneous Catalysis and Parahydrogen-Induced Polarization. ChemPhysChem, 2021, 22, 1421-1440.	2.1	30
13	Frontispiece: Synthetic Approaches for $^{15}\text{N}$ -Labeled Hyperpolarized Heterocyclic Molecular Imaging Agents for $^{15}\text{N}$ NMR Signal Amplification by Reversible Exchange in Microtesla Magnetic Fields. Chemistry - A European Journal, 2021, 27, .	3.3	0
14	Parahydrogen-Induced Polarization Relayed via Proton Exchange. Journal of the American Chemical Society, 2021, 143, 13694-13700.	13.7	18
15	New aspects of parahydrogen-induced polarization for $\text{C}_2\text{--}\text{C}_3$ hydrocarbons using metal complexes. Russian Chemical Bulletin, 2021, 70, 2382-2389.	1.5	4
16	Quantifying the effects of quadrupolar sinks <i>via</i> $^{15}\text{N}$ relaxation dynamics in metronidazoles hyperpolarized <i>via</i> SABRE-SHEATH. Chemical Communications, 2020, 56, 9098-9101.	4.1	32
17	Parahydrogen-Induced Polarization of Diethyl Ether Anesthetic. Chemistry - A European Journal, 2020, 26, 13621-13626.	3.3	11
18	Frontispiece: Parahydrogen-Induced Polarization of Diethyl Ether Anesthetic. Chemistry - A European Journal, 2020, 26, .	3.3	0

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19	Catalytic hydrogenation with parahydrogen: a bridge from homogeneous to heterogeneous catalysis. <i>Pure and Applied Chemistry</i> , 2020, 92, 1029-1046.	1.9	17
20	Low-valent homobimetallic Rh complexes: influence of ligands on the structure and the intramolecular reactivity of Rh <sup>+</sup> H intermediates. <i>Chemical Science</i> , 2019, 10, 7937-7945.	7.4	15
21	Parahydrogen-Induced Polarization of 1- <sup>13</sup> C-Acetates and 1- <sup>13</sup> C-Pyruvates Using Sidearm Hydrogenation of Vinyl, Allyl, and Propargyl Esters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12827-12840.	3.1	28
22	Clinical-Scale Batch-Mode Production of Hyperpolarized Propane Gas for MRI. <i>Analytical Chemistry</i> , 2019, 91, 4741-4746.	6.5	23
23	Relaxation Dynamics of Nuclear Long-Lived Spin States in Propane and Propane-d <sub>6</sub> Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11734-11744.	3.1	18
24	Heterogeneous hydrogenation of phenylalkynes with parahydrogen: hyperpolarization, reaction selectivity, and kinetics. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 26477-26482.	2.8	12
25	Mechanistic Insight into the Heterogeneous Hydrogenation of Furan Derivatives with the use of Parahydrogen. <i>ChemCatChem</i> , 2018, 10, 1178-1183.	3.7	20
26	Effects of Deuteration of <sup>13</sup> C-Enriched Phospholactate on Efficiency of Parahydrogen-Induced Polarization by Magnetic Field Cycling. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24740-24749.	3.1	12
27	<sup>19</sup> F Hyperpolarization of <sup>15</sup> N-3- <sup>19</sup> F-Pyridine via Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23002-23010.	3.1	23
28	Hyperpolarized NMR Spectroscopy: <i>d</i> -DNP, PHIP, and SABRE Techniques. <i>Chemistry - an Asian Journal</i> , 2018, 13, 1857-1871.	3.3	180
29	Synthesis of Unsaturated Precursors for Parahydrogen-Induced Polarization and Molecular Imaging of 1- <sup>13</sup> C-Acetates and 1- <sup>13</sup> C-Pyruvates via Side Arm Hydrogenation. <i>ACS Omega</i> , 2018, 3, 6673-6682.	3.5	33
30	Heterogeneous Parahydrogen Pairwise Addition to Cyclopropane. <i>ChemPhysChem</i> , 2018, 19, 2621-2626.	2.1	19
31	The Suzuki-Miyaura reaction as a tool for modification of phenoxy-nitroxyl radicals of the 4- <i>H</i> -imidazole <i>N</i> -oxide series. <i>RSC Advances</i> , 2018, 8, 26099-26107.	3.6	4
32	The effect of oxidative and reductive treatments of titania-supported metal catalysts on the pairwise hydrogen addition to unsaturated hydrocarbons. <i>Catalysis Today</i> , 2017, 283, 82-88.	4.4	20
33	NMR Spin-Lock Induced Crossing (SLIC) dispersion and long-lived spin states of gaseous propane at low magnetic field (0.05 T). <i>Journal of Magnetic Resonance</i> , 2017, 276, 78-85.	2.1	36
34	Extending the Lifetime of Hyperpolarized Propane Gas through Reversible Dissolution. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4481-4487.	3.1	18
35	2D Mapping of NMR Signal Enhancement and Relaxation for Heterogeneously Hyperpolarized Propane Gas. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10038-10046.	3.1	31
36	Pairwise hydrogen addition in the selective semihydrogenation of alkynes on silica-supported Cu catalysts. <i>Chemical Science</i> , 2017, 8, 2426-2430.	7.4	28

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37	Imaging of Biomolecular NMR Signals Amplified by Reversible Exchange with Parahydrogen Inside an MRI Scanner. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25994-25999.	3.1	25
38	Application of parahydrogen for mechanistic investigations of heterogeneous catalytic processes. <i>Russian Chemical Bulletin</i> , 2017, 66, 273-281.	1.5	1
39	NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, 725-751.	3.3	140
40	Xâ€‘H Bond Activation on Cr(III),O Sites (X = R, H): Key Steps in Dehydrogenation and Hydrogenation Processes. <i>Organometallics</i> , 2017, 36, 234-244.	2.3	51
41	CHAPTER 6. Catalytic Enhancement of NMR Sensitivity for Advanced Spectroscopic and Imaging Studies in Catalysis and Life Sciences. <i>RSC Smart Materials</i> , 2017, , 142-171.	0.1	7
42	Production of Pure Aqueous <sup>13</sup> Câ€‘Hyperpolarized Acetate by Heterogeneous Parahydrogenâ€‘Induced Polarization. <i>Chemistry - A European Journal</i> , 2016, 22, 16446-16449.	3.3	36
43	Catalysis and Nuclear Magnetic Resonance Signal Enhancement with Parahydrogen. <i>Topics in Catalysis</i> , 2016, 59, 1686-1699.	2.8	24
44	Efficient Batchâ€‘Mode Parahydrogenâ€‘Induced Polarization of Propane. <i>ChemPhysChem</i> , 2016, 17, 3395-3398.	2.1	13
45	Toward production of pure <sup>13</sup> C hyperpolarized metabolites using heterogeneous parahydrogen-induced polarization of ethyl[1- <sup>13</sup> C]acetate. <i>RSC Advances</i> , 2016, 6, 69728-69732.	3.6	28
46	NMR SLIC Sensing of Hydrogenation Reactions Using Parahydrogen in Low Magnetic Fields. <i>Journal of Physical Chemistry C</i> , 2016, 120, 29098-29106.	3.1	21
47	Hydrogenation of Unsaturated Six-Membered Cyclic Hydrocarbons Studied by the Parahydrogen-Induced Polarization Technique. <i>Journal of Physical Chemistry C</i> , 2016, 120, 13541-13548.	3.1	20
48	Gas Phase UTE MRI of Propane and Propene. <i>Tomography</i> , 2016, 2, 49-55.	1.8	21
49	Production of Catalyst-Free Hyperpolarised Ethanol Aqueous Solution via Heterogeneous Hydrogenation with Parahydrogen. <i>Scientific Reports</i> , 2015, 5, 13930.	3.3	41
50	A Mechanistic Study of Thiophene Hydrodesulfurization by the Parahydrogenâ€‘Induced Polarization Technique. <i>ChemCatChem</i> , 2015, 7, 3508-3512.	3.7	42
51	Strong Metalâ€‘Support Interactions for Palladium Supported on TiO <sub>2</sub> Catalysts in the Heterogeneous Hydrogenation with Parahydrogen. <i>ChemCatChem</i> , 2015, 7, 2581-2584.	3.7	54
52	NMR Signal Enhancement for Hyperpolarized Fluids Continuously Generated in Hydrogenation Reactions with Parahydrogen. <i>Journal of Physical Chemistry A</i> , 2015, 119, 996-1006.	2.5	47
53	Singleâ€‘Atom Gold Catalysis in the Context of Developments in Parahydrogenâ€‘Induced Polarization. <i>Chemistry - A European Journal</i> , 2015, 21, 7012-7015.	3.3	68
54	Propane- <i>d</i> <sub>6</sub> Heterogeneously Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28234-28243.	3.1	71

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55	Parahydrogen-induced polarization (PHIP) in heterogeneous hydrogenation over bulk metals and metal oxides. <i>Chemical Communications</i> , 2014, 50, 875-878.	4.1	50
56	Evaluation of Activation Energies for Pairwise and Non-Pairwise Hydrogen Addition to Propyne Over Pd/Aluminosilicate Fiberglass Catalyst by Parahydrogen-Induced Polarization (PHIP). <i>Applied Magnetic Resonance</i> , 2014, 45, 1051-1061.	1.2	8
57	Evaluation of the Mechanism of Heterogeneous Hydrogenation of $\hat{1},\hat{1}^2$ -Unsaturated Carbonyl Compounds via Pairwise Hydrogen Addition. <i>ACS Catalysis</i> , 2014, 4, 2022-2028.	11.2	36
58	High-Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO <sub>2</sub> Heterogeneous Catalyst. <i>Chemistry - A European Journal</i> , 2014, 20, 11636-11639.	3.3	72
59	Toward Continuous Production of Catalyst-Free Hyperpolarized Fluids Based on Biphasic and Heterogeneous Hydrogenations with Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22887-22893.	3.1	38
60	Kinetic Study of Propylene Hydrogenation over Pt/Al <sub>2</sub> O <sub>3</sub> by Parahydrogen-Induced Polarization. <i>Applied Magnetic Resonance</i> , 2013, 44, 279-288.	1.2	17