

# Alexey A Makarov

## List of Publications by Year in descending order

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44  
papers

1,127  
citations

430442

18  
h-index

414034

32  
g-index

45  
all docs

45  
docs citations

45  
times ranked

830  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast chiral separations for high throughput enantiopurity analysis. <i>Chemical Communications</i> , 2017, 53, 509-512.	2.2	117
2	Ultrafast Chiral Chromatography as the Second Dimension in Two-Dimensional Liquid Chromatography Experiments. <i>Analytical Chemistry</i> , 2017, 89, 3545-3553.	3.2	102
3	Current challenges and future prospects in chromatographic method development for pharmaceutical research. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 95, 36-46.	5.8	98
4	Chaotropic Effects in Sub/Supercritical Fluid Chromatography via Ammonium Hydroxide in Water-Rich Modifiers: Enabling Separation of Peptides and Highly Polar Pharmaceuticals at the Preparative Scale. <i>Analytical Chemistry</i> , 2019, 91, 13907-13915.	3.2	64
5	Chromatographic Resolution of Closely Related Species in Pharmaceutical Chemistry: Dehalogenation Impurities and Mixtures of Halogen Isomers. <i>Analytical Chemistry</i> , 2014, 86, 805-813.	3.2	61
6	The Emergence of Universal Chromatographic Methods in the Research and Development of New Drug Substances. <i>Accounts of Chemical Research</i> , 2019, 52, 1990-2002.	7.6	50
7	Macrocyclic glycopeptide chiral selectors bonded to core-shell particles enables enantiopurity analysis of the entire verubecestat synthetic route. <i>Journal of Chromatography A</i> , 2018, 1539, 87-92.	1.8	48
8	Evaluation of global conformational changes in peptides and proteins following purification by supercritical fluid chromatography. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2019, 1110-1111, 94-100.	1.2	36
9	Supercritical fluid chromatography-photodiode array detection-electrospray ionization mass spectrometry as a framework for impurity fate mapping in the development and manufacture of drug substances. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2018, 1080, 42-49.	1.2	34
10	Multi-column ultra-high performance liquid chromatography screening with chaotropic agents and computer-assisted separation modeling enables process development of new drug substances. <i>Analyst</i> , 2019, 144, 2872-2880.	1.7	32
11	Search for improved fluorinated stationary phases for separation of fluorine-containing pharmaceuticals from their desfluoro analogs. <i>Journal of Chromatography A</i> , 2015, 1380, 45-54.	1.8	31
12	Enantioselective UHPLC Screening Combined with <i>In Silico</i> Modeling for Streamlined Development of Ultrafast Enantiopurity Assays. <i>Analytical Chemistry</i> , 2022, 94, 1804-1812.	3.2	31
13	Liophilic Mobile Phase Additives in Reversed Phase HPLC. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2008, 31, 1533-1567.	0.5	29
14	Generic anion-exchange chromatography method for analytical and preparative separation of nucleotides in the development and manufacture of drug substances. <i>Journal of Chromatography A</i> , 2019, 1587, 129-135.	1.8	26
15	Liposome Artificial Membrane Permeability Assay by MALDI-hydrogen-deuterium exchange mass spectrometry for peptides and small proteins. <i>Analytica Chimica Acta</i> , 2020, 1099, 111-118.	2.6	26
16	INVESTIGATION OF THE EFFECT OF PRESSURE AND LIOPHILIC MOBILE PHASE ADDITIVES ON RETENTION OF SMALL MOLECULES AND PROTEINS USING REVERSED-PHASE ULTRAHIGH PRESSURE LIQUID CHROMATOGRAPHY. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2012, 35, 407-427.	0.5	23
17	A chemoenzymatic strategy for site-selective functionalization of native peptides and proteins. <i>Science</i> , 2022, 376, 1321-1327.	6.0	22
18	Combining size-exclusion chromatography with differential hydrogen-deuterium exchange to study protein conformational changes. <i>Journal of Chromatography A</i> , 2016, 1431, 224-230.	1.8	19

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19	Unusual reversal of enantioselectivity in the asymmetric autocatalysis of pyrimidyl alkanol triggered by chiral aromatic alkanols and amines. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 555-558.	1.5	18
20	Mapping the Separation Landscape of Pharmaceuticals: Rapid and Efficient Scale-Up of Preparative Purifications Enabled by Computer-Assisted Chromatographic Method Development. <i>Organic Process Research and Development</i> , 2019, 23, 2678-2684.	1.3	18
21	Use of Pressure in Reversed-Phase Liquid Chromatography To Study Protein Conformational Changes by Differential Deuterium Exchange. <i>Analytical Chemistry</i> , 2015, 87, 2396-2402.	3.2	17
22	Use of MALDI-MS Combined with Differential Hydrogen-Deuterium Exchange for Semiautomated Protein Global Conformational Screening. <i>Analytical Chemistry</i> , 2017, 89, 8351-8357.	3.2	17
23	Comprehensive online multicolumn two-dimensional liquid chromatography-diode array detection-mass spectrometry workflow as a framework for chromatographic screening and analysis of new drug substances. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 2655-2663.	1.9	16
24	Ultra-high-throughput SPE-MALDI workflow: Blueprint for efficient purification and screening of peptide libraries. <i>Analytica Chimica Acta</i> , 2021, 1142, 10-18.	2.6	16
25	Effect of pressure on secondary structure of proteins under ultra high pressure liquid chromatographic conditions. <i>Journal of Chromatography A</i> , 2013, 1318, 112-121.	1.8	14
26	Visualizing and studying frictional heating effects in reversed-phase liquid chromatography using infrared thermal imaging. <i>Analytica Chimica Acta</i> , 2018, 1018, 1-6.	2.6	14
27	Use of MALDI-MS with solid-state hydrogen deuterium exchange for semi-automated assessment of peptide and protein physical stability in lyophilized solids. <i>Analytica Chimica Acta</i> , 2019, 1054, 114-121.	2.6	14
28	In silico method development for the reversed-phase liquid chromatography separation of proteins using chaotropic mobile phase modifiers. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2021, 1173, 122587.	1.2	13
29	Semi-automated screen for global protein conformational changes in solution by ion mobility spectrometry-mass spectrometry combined with size-exclusion chromatography and differential hydrogen-deuterium exchange. <i>Journal of Chromatography A</i> , 2017, 1496, 51-57.	1.8	12
30	Trapping-Enrichment Multi-dimensional Liquid Chromatography with Online Deuterated Solvent Exchange for Streamlined Structure Elucidation at the Microgram Scale. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	12
31	Can the analyte-triggered asymmetric autocatalytic Soai reaction serve as a universal analytical tool for measuring enantiopurity and assigning absolute configuration?. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 96-101.	1.5	11
32	Combination of circular dichroism spectroscopy and size-exclusion chromatography coupled with HDX-MS for studying global conformational structures of peptides in solution. <i>Talanta</i> , 2019, 194, 177-182.	2.9	10
33	The use of ultra high-performance liquid chromatography for studying hydrolysis kinetics of CL-20 and related energetic compounds. <i>Journal of Hazardous Materials</i> , 2009, 162, 1034-1040.	6.5	9
34	Development of ProTx-II Analogues as Highly Selective Peptide Blockers of Na <sub>v</sub> 1.7 for the Treatment of Pain. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 485-496.	2.9	9
35	Discovery of a Stable Molecular Complex of an API With HCl: A Long Journey to a Conventional Salt. <i>Journal of Pharmaceutical Sciences</i> , 2008, 97, 3721-3726.	1.6	8
36	Enhancing Productivity in the Analytical Laboratory Through the Use of Ultra Fast-HPLC in Preformulation/Formulation Development. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2008, 31, 2253-2285.	0.5	8

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37	Use of Raman spectroscopy and size-exclusion chromatography coupled with HDX-MS spectroscopy for studying conformational changes of small proteins in solution. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2020, 189, 113399.	1.4	8
38	Effect of pressure on the chromatographic separation of enantiomers under reversed-phase conditions. <i>Journal of Chromatography A</i> , 2014, 1352, 87-92.	1.8	7
39	Use of hydrostatic pressure for modulation of protein chemical modification and enzymatic selectivity. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 4448-4455.	1.5	5
40	Effects of pressure and frictional heating on protein separation using monolithic columns in reversed-phase chromatography. <i>Journal of Chromatography A</i> , 2017, 1489, 58-64.	1.8	5
41	Combination of HDX-MS and in silico modeling to study enzymatic reactivity and stereo-selectivity at different solvent conditions. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2020, 182, 113141.	1.4	5
42	Interrogation of solution conformation of complex macrocyclic peptides utilizing a combined SEC-HDX-MS, circular dichroism, and NMR workflow. <i>Analyst</i> , The, 2022, 147, 325-332.	1.7	3
43	Rapid antibody conformational screening by matrix-assisted laser desorption/ionization hydrogen-deuterium exchange mass spectrometry. <i>Journal of Separation Science</i> , 2022, 45, 2055-2063.	1.3	3
44	Trapping-Enrichment Multi-Dimensional Liquid Chromatography with On-Line Deuterated Solvent Exchange for Streamlined Structure Elucidation at the Microgram Scale. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3