

# Sergiy I Okovytyy

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Application of Computational Approaches to Analysis of Multistep Chemical Reactions of Energetic Materials: Hydrolysis of Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) and Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine(HMX). , 2022, , 215-232.		0
2	Use of dye aggregation phenomenon for spectrophotometric and SIA-LAV determination of bismuth(III) as a specific ion association complex between tetraiodobismuthate and Astra Phloxine. Journal of Molecular Structure, 2022, 1251, 132015.	3.6	6
3	Efficient approach for exploring the multiple-channel bimolecular interactions of conformationally flexible reagents. Epoxide ring opening reaction. Structural Chemistry, 2021, 32, 581-589.	2.0	1
4	Catalytic role of solvated electron in the spontaneous degradation of insensitive munition compounds: computational chemistry investigation. Structural Chemistry, 2021, 32, 521-527.	2.0	4
5	Ligand-Mediated Regioselective Rhodium-Catalyzed Benzotriazole-Allene Coupling: Mechanistic Exploration and Quantum Chemical Analysis. Chemistry - A European Journal, 2020, 26, 2342-2348.	3.3	16
6	Role of Singlet Oxygen in the Degradation of Selected Insensitive Munitions Compounds: A Comprehensive, Quantum Chemical Investigation. Journal of Physical Chemistry A, 2019, 123, 7597-7608.	2.5	5
7	A density functional theory investigation of degradation of Nitroguanidine in the photoactivated triplet state. Journal of Molecular Modeling, 2019, 25, 372.	1.8	0
8	Synthesis, Tautomerism, and Antiradical Activity of Novel Pteridinetriene Derivatives. Journal of Heterocyclic Chemistry, 2018, 55, 1033-1041.	2.6	6
9	QSPR modeling of optical rotation of amino acids using specific quantum chemical descriptors. Journal of Molecular Modeling, 2018, 24, 59.	1.8	8
10	Synthesis and characterization of sulfolane-based amino alcohols: A combined experimental and computational study. Journal of Molecular Structure, 2018, 1157, 149-158.	3.6	7
11	Reactions of 2-(4D)-chromenes with dinucleophiles: one-step synthesis of 2-(1H-(bi)pyrazol-3-yl)- and 2-(1,4(5)-(benzo)diazepin-4-yl)phenols. Chemistry of Heterocyclic Compounds, 2018, 54, 859-867.	1.2	4
12	Dimethyl Acetylenedicarboxylate in Reactions with Substituted 3-(2-aminophenyl)-1,2,4-triazin-5-(2 H) Tj ETQq0 2038-2042.	2.6	4
13	Copper Crystallization from Aqueous Solution: Initiation and Evolution of the Polynuclear Clusters. Journal of Cluster Science, 2017, 28, 2517-2528.	3.3	3
14	In silico kinetics of alkaline hydrolysis of 1,3,5-trinitro-1,3,5-triazinane (RDX): M06-2X investigation. Environmental Sciences: Processes and Impacts, 2017, 19, 388-394.	3.5	18
15	Novel xanthene push-pull chromophores and luminophores: Synthesis and study of their spectral properties. Tetrahedron, 2017, 73, 7159-7168.	1.9	14
16	Structure and redox properties of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) adsorbed on a silica surface. A DFT M05 computational study. VĀ-snik DnĀ-propetrovsĒ1kogo UnĀ-versitetu: SerĀ-Āĉ HĀ-mĀ-Āĉ, 2017, 25, 1-8.	0.1	1
17	Origin of Substituent Effect on Tautomeric Behavior of 1,2,4-Triazole Derivatives: Combined Spectroscopic and Theoretical Study. Journal of Physical Chemistry A, 2016, 120, 10116-10122.	2.5	14
18	A Counterion-Directed Approach to the Diels-Alder Paradigm: Cascade Synthesis of Tricyclic Fused Cyclopropanes. Angewandte Chemie - International Edition, 2016, 55, 13813-13817.	13.8	9

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19	In Silico Alkaline Hydrolysis of Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine: Density Functional Theory Investigation. <i>Environmental Science &amp; Technology</i> , 2016, 50, 10039-10046.	10.0	14
20	A Counterion-Directed Approach to the Diels-Alder Paradigm: Cascade Synthesis of Tricyclic Fused Cyclopropanes. <i>Angewandte Chemie</i> , 2016, 128, 14017-14021.	2.0	3
21	Interaction of 2-(Aminophenyl)-1,2,4-triazin-5-ones with Acylating Reagents: An Efficient Method for Preparation of 6-Substituted 3-(2-Hydroxy[1,2,4]triazino[2,3-c]quinazolin-2-ones. <i>Journal of Heterocyclic Chemistry</i> , 2016, 53, 776-783.	2.6	6
22	ДієїдфД°Н, НфД°Н- Д³/⁴Д°Д, НД»НЖД²Д°Д»НCED½Д³/⁴-Д²Н-Д¹/²Д³/⁴Д²Д½Н- Д²Д»Д°НН, Д, Д²Д³/⁴НН, Н- 2, 4, 6, 8, 10, 12-Д³Дμ, 23, 1.		
23	Д²Д²Д³/⁴Н... ДμД»ДμД°Н, НCED³/⁴Д½Д½Дμ Д²Н-Д¹/²Д³/⁴Д²Д»ДμД½Д½Н-Д¹/²Н-Н, НCED³/⁴Д°НCED³/⁴Д¼Д°Н, Д, Н, Д½Д, Н. 1. НД; Д³/⁴Д		
24	Alkaline hydrolysis of hexahydro-1,3,5-trinitro-1,3,5-triazine: M06-2X investigation. <i>Chemosphere</i> , 2015, 134, 31-38.	8.2	11
25	Catalytic enantioselective synthesis of indanes by a cation-directed 5-endo-trig cyclization. <i>Nature Chemistry</i> , 2015, 7, 171-177.	13.6	87
26	Quantum-Chemical Investigation of Epoxidic Compounds Transformation. Application for In Vitro and In Vivo Processes Modeling. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2014, , 295-323.	0.6	0
27	Accurate calculations of dynamic first hyperpolarizability: Construction of physically justified Slater-type basis sets. <i>International Journal of Quantum Chemistry</i> , 2014, 114, 689-695.	2.0	2
28	Hydrazinolysis of 3- <i>R</i> -[1,2,4]Triazino[2,3- <i>c</i> ]quinazolin-2-ones. <i>Synthetic and Theoretical Aspects. Journal of Physical Chemistry A</i> , 2014, 118, 1895-1905.	2.5	18
29	Comprehensive Investigations of Kinetics of Alkaline Hydrolysis of TNT (2,4,6-Trinitrotoluene), DNT (2,4-Dinitrotoluene), and DNAN (2,4-Dinitroanisole). <i>Environmental Science &amp; Technology</i> , 2014, 48, 10465-10474.	10.0	47
30	Д†Д ДμД½Н, Д, Н,, Н-Д°Д°Н†Н-Н•N-Д¼ДμН, Д, Д»-4-Н, Д³/⁴Д»Н-Д»-1-(4-Д±НCED³/⁴Д¼Д³/⁴Д½Д°Н,, Н, Д, Д»)Д°Д¼Н-Д½Д½Нф НЖД° N-Н,, Дμ		
31	Д; Н, ДμНCEDμД³/⁴Н... Н-Д¼Н-Н•ДμД; Д³/⁴Д°НД, Д НфД²Д°Д½Д½Н-Д±Н-Н†Д, Д°Д»Д³/⁴ [2.2.1]Д³ДμД; Н, -2-Н"Д½Н-Д² Н, Д°Н-Н... 7		
32	ДCED°НфН, Д³/⁴Д¼ДμНCED°Н-Н•4-Д³Н-Д НCED°Д, Д½Д³/⁴Н... Н-Д½Д°Д-Д³/⁴Д»Н-Д½Н-Д², Д°Д³/⁴Д»Д, Д²Д°Д»НCED½Н- НД; ДμД°Н, Н		
33	Novel physically adapted STO <sup>###</sup> basis sets. Efficiency for prediction of second-order electric and magnetic properties of aromatic hydrocarbons. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 2444-2449.	2.0	23
34	DFT M06-2X investigation of alkaline hydrolysis of nitroaromatic compounds. <i>Chemosphere</i> , 2012, 88, 635-643.	8.2	49
35	Experimental and theoretical study on the reaction of bicyclo[2.2.1]hept-5-en-endo-2-ylmethanamine with glycidyl ethers. <i>Russian Journal of Organic Chemistry</i> , 2011, 47, 74-82.	0.8	2
36	Accurate calculations of second-order electric and magnetic properties: Two ways of physically justified modifications of basis sets. <i>Chemical Physics</i> , 2010, 372, 67-71.	1.9	6

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37	DFT Study on Tautomerism of Dihydro-1,5-benzodiazepin-2-ones and Dihydro-1,5-benzodiazepine-2-thiones. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 280-291.	2.4	19
38	Ethanolysis of N-substituted norbornane epoxyimides: Discovery of diverse pathways depending on substituent's character. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 2142-57.	2.8	9
39	Theoretical Study of Mechanism of 2,3-Dihydro-1,5-benzodiazepin-2-ones Hydrazinolysis. <i>Journal of Physical Chemistry A</i> , 2009, 113, 1475-1480.	2.5	6
40	Comprehensive DFT and MP2 Level Investigations of Reaction of 2,3-Dihydro-1,5-benzodiazepine-2-thiones with Hydrazine. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11376-11381.	2.5	5
41	CL-20 photodecomposition: Ab initio foundations for identification of products. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2008, 71, 230-237.	3.9	3
42	Azabrendanes V. Synthesis and reactions of stereoisomeric exo- and endo-5-aminomethylbicyclo[2.2.1]hept-2-ene-based ureas. <i>Open Chemistry</i> , 2008, 6, 161-174.	1.9	2
43	Computational Study of the Aminolysis of Anhydrides: Effect of the Catalysis to the Reaction of Succinic Anhydride with Methylamine in Gas Phase and Nonpolar Solution. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5224-5235.	2.5	21
44	The performance of the new 6-31G## basis set: Molecular structures and vibrational frequencies of transition metal carbonyls. <i>Journal of Computational Chemistry</i> , 2007, 28, 778-782.	3.3	12
45	Azabrendanes IV. Synthesis and characterization of N-(alkyl- and Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 422 Td (benzylsulfony	1.9	11
46	An analysis of stable forms of CL-20: A DFT study of conformational transitions, infrared and Raman spectra. <i>Journal of Molecular Structure</i> , 2007, 843, 14-25.	3.6	72
47	Are 1,5- and 1,7-dihydrodiimidazo[4,5-b:4'5'-e]pyrazine the main products of 2,4,6,8,10,12-hexanitro-2,4,6,8,10,12-hexaazaisowurtzitane (CL-20) alkaline hydrolysis? A DFT study of vibrational spectra. <i>Journal of Molecular Structure</i> , 2006, 794, 288-302.	3.6	11
48	Reactions of alicyclic epoxy compounds with oxygen-centered nucleophiles. <i>Russian Journal of Organic Chemistry</i> , 2006, 42, 307-337.	0.8	7
49	Identification of the stereoisomers of tetrahydroindene diepoxide by the <sup>1</sup> H and <sup>13</sup> C NMR characteristics: A combined experimental and theoretical study. <i>Computational and Theoretical Chemistry</i> , 2005, 730, 125-132.	1.5	2
50	New Tricyclic Amides. Synthesis, Structure, and Oxidation with Peroxyphthalic Acid. <i>Russian Journal of Organic Chemistry</i> , 2005, 41, 816-824.	0.8	1
51	Prediction of CL-20 chemical degradation pathways, theoretical and experimental evidence for dependence on competing modes of reaction. <i>SAR and QSAR in Environmental Research</i> , 2005, 16, 495-515.	2.2	19
52	The Mechanism of Unimolecular Decomposition of 2,4,6,8,10,12-Hexanitro-2,4,6,8,10,12-hexaazaisowurtzitane. A Computational DFT Study. <i>Journal of Physical Chemistry A</i> , 2005, 109, 2964-2970.	2.5	75
53	Reactions of Alicyclic Epoxy Compounds with Nitrogen-Containing Nucleophiles. <i>Russian Journal of Organic Chemistry</i> , 2004, 40, 1-34.	0.8	15
54	Synthesis, Structure, and Derivatives of endo-4-Aminomethyltetracyclo[6.2.1.1.3,6.02,7]dodec-9-ene. <i>Russian Journal of Organic Chemistry</i> , 2004, 40, 1080-1091.	0.8	4

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55	A New Approach for Calculations of the Second-Order Magnetic Properties: $\hat{A}$ Magnetic Susceptibility. Journal of Physical Chemistry A, 2004, 108, 4930-4933.	2.5	5
56	An Investigation of the $^{17}\text{O}$ NMR Chemical Shifts in Oxiranes Using Magnetically Corrected Basis Sets. Journal of Physical Chemistry A, 2002, 106, 4176-4180.	2.5	15
57	Is 2-oxabicyclobutane formed during the reaction of peroxyacids with cyclopropene? A high-level ab initio study. Tetrahedron, 2002, 58, 8751-8758.	1.9	6
58	A reinvestigation of the mechanism of epoxidation of alkenes by peroxy acids. A CASSCF and UQCISD study. Tetrahedron Letters, 2002, 43, 4215-4219.	1.4	29
59	Epoxidation of 1-Substituted 3-Cyclohexenes. Theoretical and Experimental Investigation. Russian Journal of Organic Chemistry, 2002, 38, 160-164.	0.8	2
60	New insight on the mechanism of 2-oxabicyclobutane fragmentation. A high-level ab initio study. Tetrahedron, 2001, 57, 1509-1513.	1.9	10
61	Theoretical Study of Alkaline Methanolysis of Alicyclic Epoxy Derivatives. Russian Journal of Organic Chemistry, 2001, 37, 345-350.	0.8	5
62	Title is missing!. Russian Journal of Organic Chemistry, 2001, 37, 1564-1569.	0.8	4
63	Probability of reaction pathways of amine with epoxides in the reagent ratio of 1:1 and 1:2. Structural Chemistry, 0, , .	2.0	0