

Publication List

(refereed by Scopus and Web of Science)
Department of Organic Chemistry NTUU KPI
2001–2014

1. Fokin, A. A.; Lauenstein, O.; Gunchenko, P. A.; Schreiner, P. R. Halogenation of cubane under phase-transfer conditions: Single and double C–H-bond substitution with conservation of the cage Structure. *J. Am. Chem. Soc.* **2001**, *123*, 1842–1847.
2. Krasutsky, P. A.; Kolomitsyn, I. V.; Kiprof, P.; Carlson, R. M.; Sydorenko, N. A.; Fokin, A. A. A Consecutive double-Criegee rearrangement using TFPAA: Stepwise conversion of homoadamantane to oxahomoadamantanes. *J. Org. Chem.* **2001**, *66*, 1701–1707.
3. Schreiner, P. R.; Gunchenko, P. A.; Wittkopp, A.; Yaroshinsky, A. I.; Peleshanko, S. A.; Fokin, A. A. The rearrangement of the cubane radical cation in solution. *Chem. Eur. J.* **2001**, *7*, 2739–2744.
4. Fornarini, S.; Crestone, E.; Fokin, A. A. The protonation of gaseous cyclopropane. *Chem. Eur. J.* **2001**, *7*, 2916–2921.
5. Prall, M.; Wittkopp, A.; Fokin, A. A.; Schreiner, P. R. Substituent effects on the Bergman Cyclization of (Z)-1,5-hexadiyne-3-enes: A systematic computational study. *J. Comp. Chem.* **2001**, *22*, 13, 1605–1614.
6. Fokin, A. A.; Tkachenko, B. A.; Korshunov, O. I.; Gunchenko, P. A.; Schreiner, P. R. Molecule-induced alkane homolysis with dioxiranes. *J. Am. Chem. Soc.* **2001**, *123*, 11248–11252.
7. Schreiner, P. R.; Lauenstein, O.; Butova, E. D.; Gunchenko, P. V.; Kolomitsin, I. V.; Wittkopp, A.; Feder, G.; Fokin, A. A. Selective radical reactions in multiphase systems: Phase-transfer halogenations of alkanes. *Chem. Eur. J.* **2001**, *7*, 23, 4996–5003.
8. Yurchenko, R. I.; Svarovskaya, N. N.; Ponomarenko, A. D. 2-(1-Adamantyl)imidazo[1,2- α]pyridine and its transformations. *Khim. Heterocyc. Soed.* **2001**, 852–853.
9. Shubina, T. E.; Gunchenko, P. A.; Yurchenko, A. G.; Schreiner, P. R.; Butova, E. D.; Fokin, A. A. Structure and transformations of 1-alkyladamantane radical cations. *Teoret. i Experim. Khimiya* **2002**, *38*, 1, 8–13.
10. Kiriya, A. V.; Yurchenko, A. G.; Fokin, A. A. The new [2,3]-sigmatropic rearrangement of allylsulfinyl carbanions. *Zhurn. Org. Khimii* **2002**, *38*, 3, 471–472.
11. Fokin, A. A.; Schreiner, P. R. Selective alkane transformations via radicals and radical cations: Insights into the activation step from experiment and theory. *Chem. Rev.* **2002**, *102*, 1551–1593.
12. Fokin, A. A.; Shubina, T. E.; Gunchenko, P. A.; Isaev, S. D.; Yurchenko, A. G.; Schreiner, P. R. H-Coupled electron transfer in alkane C–H activations with halogen electrophiles. *J. Am. Chem. Soc.* **2002**, *124*, 10718–10727.

13. Shubina, T. E.; Gunchenko, P. A.; Vigovskaya, T. S.; Schreiner, P. R.; Yurchenko, A. G.; Fokin, A. A. [3.3.2]- and [3.3.3]propellanes in reactions with oxidizing electrophiles. *Teoret. i Experim. Khimiya*, **2002**, 38, 4, 226–231.
14. Pisanenko, D.A.; Pogrebova, I.S. Synthesis and corrosion-protecting power of quaternary ammonium salts based on 2-acetylallyl chloride. *Russ. J. Appl. Chem.* **2002**, 75, 1248–1251.
15. Fokin, A. A.; Tkachenko, B. A.; Shubina, T. E.; Gunchenko, P. A.; Gusev, D. V.; Vohs, J. K.; Robinson, R. H.; Yurchenko, A. G.; Schreiner, P. R. The protoadamantane radical cation. *Eur. J. Org. Chem.* **2002**, 3844–3849.
16. Schreiner, P. R.; Fokin, A. A.; Lauenstein, O.; Okamoto, Y.; Wakita, T.; Rinderspacher, C.; Robinson, G. H.; Vohs, J. K.; Campana, C. F. Pseudotetrahedral polyhaloadamantanes as chirality probes: Synthesis, separation, and absolute configuration. *J. Am. Chem. Soc.* **2002**, 124, 13348–13349.
17. Krasutsky, P. A.; Kolomitsyn, I. V.; Botov, E. M.; Carlson, R. M.; Semenova, I. G.; Fokin, A. A. Heterolytic decarboxylation involving acyltrifluoroacetyl peroxide intermediates. *Tetrahedron Lett.* **2002**, 43, 8687–8691.
18. Miryan, N.I.; Isaev, S.D.; Yurchenko, A.G. Synthesis of unsaturated carboxylic and amino acids of adamantane series with the use of organophosphorus reagents, *Russ. J. Org. Chem.* **2002**, 38, 188–190.
19. Dvorko, G.F.; Koshchii, I.V.; Prokopets, A.M. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXII. Solvent effects on activation parameters of heterolysis of 1-chloro-1-methylcyclopentane. correlation analysis of solvation effects, *Russ. J. Org. Chem.* **2002**, 72, 1882–1893.
20. Dvorko, G.F.; Koshchii, I.V.; Prokopets, A.M.; Ponomareva, E. A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXI. Solvent effect on the rate of 1-methyl-1-chlorocyclopentane heterolysis. Correlation analysis of solvation effects, *Russ. J. Gen. Chem.* **2002**, 72, 1797–1804.
21. Tkachenko, B. A.; Shubina, T. E.; Gusev, D. V.; Gunchenko, P. A.; Yurchenko, A. G.; Schreiner, P. R.; Fokin, A. A. Mechanisms of C–H Activation of Alkanes by Chromium-oxo Reagents. *Theoret. and Experim. Khim.* **2003**, 39, 2, 90–95.
22. Dvorko, G.F.; Koshchii, I.V.; Ponomareva, E. A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXVII. Effect of nucleofuge and solvent of the relative rates of heterolysis of 1-halo-1-methylcyclopentanes and 1-halo-1-methylcyclohexanes. Correlation analysis of solvation effects, *Russ. J. Org. Chem.*, **2003**, 73, 1426–1433.
23. Dvorko, G.F.; Koshchii, I.V.; Ponomareva, E. A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXVI. Solvent effect on the activation parameters of heterolysis of 1-methyl-1-chlorocyclohexane. Correlation analysis of solvation effects in heterolysis of 1-methyl-1-chlorocyclohexane and 1-methyl-1-chlorocyclopentane. *Russ. J. Org. Chem.*, **2003**, 73, 1569–1574.

24. Dvorko, G.F.; Koshchii, I.V.; Ponomareva, E.A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXIII. Correlation analysis of solvation effects in monomolecular heterolysis of 1-bromo-1-methylcyclopentane, 1-bromo-1-methylcyclohexane, and 2-bromo-2-methyladamantane. *Russ. J. Gen. Chem.* **2003**, *73*, 104-113.
25. Dvorko, G.F.; Koshchii, I.V.; Ponomareva, E.A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXV. Solvation effects on the activation parameters of heterolysis of 1-bromo-1-methylcyclopentane and 1-bromo-1-methylcyclohexane. correlation analysis of solvation effects *Russ. J. Gen. Chem.* **2003**, *73*, 375-388.
26. Dvorko, G.F.; Koshchii, I.V.; Ponomareva, E.A. Kinetics and mechanism of monomolecular heterolysis of commercial organohalogen compounds: XXXIV. Solvent effect on the heterolysis rate of 1-chloro-1-methylcyclohexane. Correlation analysis of solvation effects in heterolysis of 1-chloro-1-methylcyclohexane and 1-chloro-1-methylcyclopentane. *Russ. J. Gen. Chem.* **2003**, *73*, 204-212.
27. Fokin, A. A.; Schreiner, P. R.; Kozhushkov, S. I.; Sattelmeyer, K. W.; Schaefer, H. F.; de Meijere, A. Delocalizations in s-radical cations: The Intriguing structures of ionized [n]rotanes. *Org. Lett.* **2003**, *5*, 697-700.
28. de Meijere, A.; Kozhushkov, S. I.; Fokin, A. A.; Emme, I.; Redlich, S.; Schreiner, P. R. New structurally interesting cyclopropane derivatives. A world of wonders and surprises. *Pure Appl. Chem.* **2003**, *75*, 549-562.
29. Fokin, A. A.; Schreiner, P. R. Metal-free, selective alkane functionalizations. *Adv. Chem. Cat.* **2003**, *345*, 1035-1052.
30. Gunchenko, P. A.; Vigovskaya, T. S.; Fokin, A. A.; Yurchenko, A. G. A New method for building of [3.3.3]propellan skeleton. *Ukr. Khim. Zhurn.* **2003**, *69*, 10, 113-115.
31. Kiriya, N.; Jahne, E.; Adler, H.-J.; Schneider, M.; Kiriya, A.; Gorodyska, G.; Minko, S.; Jehnichen, D.; Simon, P.; Fokin, A. A.; Stamm, M. One-dimensional aggregation of regioregular polyalkylthiophenes. *Nano Letters* **2003**, *3*, 707-712.
32. Schreiner, P. R.; Fokin, A. A. Selective alkane C-H-bond functionalizations utilizing oxidative single-electron transfer and organocatalysis. *Chem. Record*, **2004**, *3*, 247-257.
33. Schreiner, P. R.; Fokin, A. A.; Kotke, M.; Weil, T. Noncovalent organocatalysis. *Ann. Pol. Chem. Soc.* **2004**, *3*, part 1, 21-24.
34. Yurchenko, R.I.; Pogrebova, I.S.; Pilipenko, T.N. Phenacylpyridinium bromides as acid corrosion inhibitors. *Russ. J. Appl. Chem.* **2004**, 1117-1120.
35. Yurchenko, R.I.; Ponomarenko, A.D.; Savyna, N.S. 2-(Adamantan-1-yl)-7-methylimidazo[1,2-a]pyridine and its reaction with N-bromosuccinimide. *Khim. Heteroc. Soed.* **2004**, *12*, 1791-1793.

36. Pisanenko, D.A.; Smirnov-Zamkov, Y.I. Chloromethylation of benzyltoluenes with chlorodimethyl ether. *Russ. J. Appl. Chem.* **2004**, *7*, 513-514.
37. Rodionov, V. N.; Chernyaev, B. V.; Levandovskii, I. A.; Shubina, T. E.; Fokin, A. A.. Quantum-chemical interpretation of the reorientation of dialkyl-cis-9,10-dihydroanthracene-9,10-endofumarates on a silver-containing stationary phase. *Theoret. and Experim. Khim.* **2005**, *41*, 1, 1–6.
38. Vasil'kevich, A.I.; Ponomareva, E.A.; Dvorko, G.F. Kinetics and mechanism of unimolecular heterolysis of framework compounds: XVII. Solvation effects in dehydrobromination of tert-butyl bromide, 1-bromo-1-methylcyclohexane, and 2-bromo-2-methyladamantane in dipolar aprotic solvents. *Russ. J. Org. Chem.* **2005**, *41*, 1594–1597.
39. Yurchenko, R.I.; Ivashchenko, S.V.; Pilipenko, T.N. Pyridinium halides and their mixtures as inhibitors of steel corrosion in sulfuric acid solutions. *Russ. J. Appl. Chem.* **2005**, *79*, 511–513.
40. Pisanenko, DA; Pogrebova, IS; Avilov, OV; Yantsevich, KV. Corrosion-preventing properties of benzyl-substituted N-benzylpyridinium chlorides. *Russ. J. Appl. Chem.* **2005**, *79*, 1450-1453.
41. Yurchenko, R.I.; Savina, N.S.; Phosphorus trihalides in reactions with 2-(adamantan-1-yl)imidazo[1,2- α]pyridines. *Russ. J. Gen. Chem.* **2005**, 662-663.
42. de Meijere, A.; Lee, C.-H.; Kuznetsov M. A.; Gusev, D. V.; Kozhushkov, S. I.; Fokin, A. A.; Schreiner, P. R. Preparation and reactivity of [D_{3d}]-octahedrane: The most stable (CH)₁₂ hydrocarbon. *Chem. Eur. J.* **2005**, *11*, 6175–6184.
43. Tkachenko, B. A.; Fokina, N. A.; Chernish, L. V.; Dahl, J. E. P.; Liu, S.; Carlson, M. K.; Fokin, A. A.; Schreiner, P. R. Functionalized Nanodiamonds Part 3: Thiolation of tertiary/bridgehead alcohols. *Org. Lett.* **2006**, *8*, 1767–1770.
44. Schreiner, P. R.; Fokina, N. A.; Tkachenko, B. A.; Hausmann, H.; Serafin, M.; Dahl, J. E. P.; Liu, S.; Carlson, R. M. K.; Fokin, A. A. Functionalized Nanodiamonds Part 2: Triamantane and [121]Tetramantane. *J. Org. Chem.* **2006**, *71*, 18, 6709–6720.
45. Ponomarenko, M. V.; Serguchev Y. A.; Ponomarenko, B. V.; Röschenthaler, G.-V.; Fokin, A. A. Experimental and theoretical studies on the transannular cyclizations of 3,7-dimethylenebicyclo[3.3.1]nonane with polyfluoroalkyl radicals. *J. Fluor. Chem.* **2006**, *127*, 842–849.
46. Fokin, A. A.; Schreiner, P. R.; Fokina, N. A.; Tkachenko, B. A.; Hausmann, H.; Serafin, M. Dahl, J. E. P.; Liu, S.; Carlson, R. M. K. Functionalized nanodiamonds Part 4: Reactivity of [1(2,3)4]pentamantane (T_d -Pentamantane): A nanoscale model of diamond. *J. Org. Chem.* **2006**, *71*, 8532–8540.
47. Schreiner, P. R.; Fokin, A. A.; Pascal, R. A., Jr.; de Meijere, A. Many density functional theory approaches fail to give reliable large hydrocarbon isomer energy differences. *Org. Lett.* **2006**, *8*, 3635–3638.

48. Wodrich, M. D.; Corminboeuf, C.; Schreiner, P. R.; Fokin, A. A.; Schleyer, P. v. R. How accurate are DFT treatments of organic energies? *Org. Lett.* **2007**, *9*, 1851–1854.
49. Yang, W. L.; Fabbri, J. D.; Willey, T. M.; Lee, J. R. I.; Dahl, J. E.; Carlson, R. M. K.; Schreiner, P. R.; Fokin, A. A.; Tkachenko, B. A.; Fokina, N. A.; Meevasana, W.; Mannella, N.; Tanaka, K.; Zhou, X. J.; van Buuren, T.; Kelly, M. A.; Hussain, Z.; Melosh, N. A.; Shen, Z.-X. Monochromatic electron photoemission from diamondoid monolayers. *Science* **2007**, *316*, 1460–1462.
50. Fokin, A. A.; Butova, E. D.; Chernish, L. V.; Fokina, N. A.; Dahl, J. E. P.; Carlson, R. M. K.; Schreiner, P. R. Simple preparation of diamondoid 1,3-dienes via oxetane ring opening. *Org. Lett.* **2007**, *9*, 2541–2544.
51. Butova, E. D.; Fokin, A. A.; Schreiner, P. R. Beyond the Corey reaction: One-Step diolefination of cyclic ketones. *J. Org. Chem.* **2007**, *72*, 5689–5696.
52. Fokina, N. A.; Tkachenko, B. A.; Merz, A.; Serafin, M.; Dahl, J. E. P.; Carlson, R. M. K.; Fokin, A. A.; Schreiner, P. R. Hydroxy derivatives of diamantane, triamantane, and [121]tetramantane: Selective preparation of bis-apical derivatives. *Eur. J. Org. Chem.* **2007**, 4738–4745.
53. Roncaroli, F.; Shubina, T. E.; Clark, T. Nitrite impurities are responsible for the reaction observed between vitamin B-12 and nitric oxide in acidic aqueous solution. *Inorg. Chem.* **2006**, *45*, 7869–7876.
54. Yurchenko, R. I.; Pogrebova, I. S.; Pilipenko, T. N. Anticorrosive properties of N-acetylmethylpyridinium bromides. *Russ. J. Appl. Chem.* **2006**, *79*, 1100–1104
55. Fokin, A. A.; Yurchenko, A. G.; Rodionov, V. N.; Gunchenko, P. A.; Yurchenko, R. I.; Reichenberg, A.; Wiesner, J.; Hintz, M.; Jomaa, H.; Schreiner, P. R. Synthesis of the antimalarial drug FR900098 utilizing the nitroso-ene reaction. *Org. Lett.* **2007**, *9*, 4379–4382.
56. Yurchenko, R. I.; Klimko, Yu. M.; Esipenko, A. A.; Di(adamant-1-yl)- and Di(adamant-2-yl)thiophosphoric Acids and Their Triethylammonium Salts in Alkylation Reactions, *Russ. J. Gen. Chem.* **2007**, *79*, 1632–1634 .
57. Dvorko, G. F.; Koshchii, I. V.; Ponomareva, E. A. Kinetics and mechanism of unimolecular heterolysis of cage-like compounds: XIX. Effect of the nucleofuge nature on the activation parameters of heterolysis of 1-halo-1-methylcyclohexanes in cyclohexane. Heterolysis rate ratio in aprotic and protic solvents, *Russ. J. Org. Chem.* **2007**, *43*, 50–55.
58. Yurchenko, R. I.; Pogrebova, I. S.; Pilipenko, T. N. 1-phenacylmethyl-2-(acylaminothiocarbonylamino)pyridinium bromides as protectors of steel acid corrosion. *Russ. J. Appl. Chem.* **2007**, *80*, 675–677
59. Yurchenko, R. I.; Pilipenko, T. N.; Yurchenko, M. A. Protective effect of 1-benzyl-2-R-pyridinium halides in steel acid corrosion *Russ. J. Appl. Chem.* **2007**, *80*, 2039–2040
60. Schwertfeger, H.; Fokin, A. A.; Schreiner, P. R. Diamonds are a chemist's best friend: Diamondoid chemistry beyond adamantane. *Angew. Chem. Int. Ed.* **2008**, *47*, 1022–1036.

61. Zhuk, T. S.; Gunchenko, P. A.; Korovai, Ya. Yu.; Schreiner, P. R.; Fokin, A. A. Mechanisms of the C–H halogenation of adamantane in the presence of N-hydroxyphthalimide. *Theoret. and Experim. Khim.* **2008**, *44*, 1, 46–51.
62. Willey, T. M.; Fabbri, J. D.; Lee, J. R. I.; Schreiner, P. R.; Fokin, A. A.; Fokina, N. A.; Dahl, J. E. P.; Carlson, R. M. K.; Vance, A. L.; Yang, W.; Terminello, L. J.; van Buuren, T.; Melosh, N. A. Near-edge X-ray absorption fine structure spectroscopy of diamondoid thiol monolayers on gold. *J. Am. Chem. Soc.* **2008**, *130*, 10536–10544.
63. Fokin, A. A.; Merz, A.; Fokina, N. A.; Schwertfeger, H.; Liu, S. L.; Dahl, J. E. P.; Carlson, R. M. K.; Schreiner, P. R. Synthetic routes to aminotriamantanes, topological analogues of the neuroprotector memantine. *Synthesis* **2009**, 909–912.
64. Fokin, A. A.; Tkachenko, B. A.; Fokina, N. A.; Hausmann, H.; Serafin, M.; Dahl, J. E. P.; Carlson, R. M. K.; Schreiner, P. R. Reactivities of the prism-shaped diamondoids [1(2)3]tetramantane and [12312]hexamantane (cyclohexamantane). *Chem. Eur. J.* **2009**, *15*, 3851–3862.
65. Fokin, A. A.; Schreiner, P. R. Band gap tuning in nanodiamonds: First principle computational studies. *Molec. Phys.* **2009**, *107*, 8–12, 823–830.
66. Schwertfeger, H.; Würtele, C.; Hausmann, H.; Dahl, J. E. P.; Carlson, R. M. K.; Fokin, A. A.; Schreiner, P. R. Selective preparation of diamondoid fluorides. *Adv. Synth. Catal.* **2009**, *351*, 1041–1054.
67. Willey, T. M.; Lee, J. R. I.; Fabbri, J. D.; Wang, D.; Nielsen, M. H.; Randel, J. C.; Schreiner, P. R.; Fokin, A. A.; Tkachenko, B. A.; Fokina, N. A.; Dahl, J. E. P.; Carlson, R. M. K.; Terminello, L. J.; Melosh, N. A.; van Buuren, T. Determining orientational structure of diamondoid thiols attached to silver using near-edge X-ray absorption fine structure spectroscopy. *J. Elec. Spectr. Rel. Phen.* **2009**, *172*, 69–77.
68. Gunchenko, P. A.; Makuhina, A. M.; Novikovskiy, A. A.; Yurchenko, A. G.; Serafin, M.; Schreiner, P. R.; Fokin, A. A. Structure and transformations of homoadamantane radical cation. *Theoret. and Experim. Khim.* **2009**, *45*, 4, 246–251.
69. Sklyarova, A. S.; Rodionov, V. N.; Fokin, A. A. A convenient preparative synthesis of pentacyclo[5.3.0.0^{2,5}.0^{3,9}.0^{4,8}]decane (C₂-bishomocubane). *Zhurn. Org. Khim.* **2009**, *45*, 11, 1644–1647.
70. Fokin, A. A.; Zhuk, T. S.; Pashenko, A. E.; Dral, P. O.; Gunchenko, P. A.; Dahl, J. E. P.; Carlson, R. M. K.; Koso, T. V.; Serafin, M.; Schreiner, P. R. Oxygen-doped nanodiamonds: Synthesis and functionalizations. *Org. Lett.* **2009**, *11*, 3068–3071.
71. Fokin, A. A.; Gunchenko, P. A.; Novikovskiy, A. A.; Shubina, T. E.; Chernyaev, B. V.; Dahl, J. E. P.; Carlson, R. M. K.; Yurchenko, A. G.; Schreiner, P. R. Photoacetylation of diamondoids: Selectivities and mechanism. *Eur. J. Org. Chem.* **2009**, 5153–5161.
72. Schreiner, P. R.; Fokin, A. A.; Reisenauer, H. P.; Tkachenko, B. A.; Vass, E.; Olmstead, M. M.; Bläser, D.; Boese, R.; Dahl, J. E. P.; Carlson, R. M. K. [123]Tetramantane: Parent of a new family of σ -helicenes. *J. Am. Chem. Soc.* **2009**, *131*, 11292–11293.

73. Yurchenko, R. I.; Klimko, Yu. M.; Esipenko, A. A.; Butova, E. D.; Yurchenko, A. G. Di(adamant-1-yl)- and Di(adamant-2-yl)thiophosphoric Acids and Their Triethylammonium Salts in Alkylation Reactions. *Russ. J. Gen. Chem.* **2009**, *79*, 1632-1634.
74. Vishnevskaya, Yu. P.; Rodionov, V. N.; Tkalenko, D. A.; Triphenylphosphine oxide as an inhibitor of acid corrosion of iron. *Prot. Met. Phys. Chem. Surf.* **2009**, 359-360
75. Levandovskiy, I. A.; Shubina, T. E.; Fokin, A. A. Computational and QSAR study of the alkylnaphthyl ketones adsorption on silver-ion stationary phase. *J. Molec. Mod.* **2010**, *16*, 513-522.
76. Landt, L.; Staiger, M.; Wolter, D.; Klünder, K.; Zimmermann, P.; Willey, T. M.; van Buuren, T.; Brehmer, D.; Schreiner, P. R.; Tkachenko, B. A.; Fokin, A. A.; Möller, T.; Bostedt, C. The influence of a single thiol group on the electronic and optical properties of the smallest diamondoid adamantane. *J. Chem. Phys.* **2010**, *132*, 0247101(7p).
77. Landt, L.; Bostedt, C.; Wolter, D.; Möller, T.; Dahl, J. E. P.; Carlson, R. M. K.; Tkachenko, B. A.; Fokin, A. A.; Schreiner, P. R.; Kulesza, A.; Bonacic-Koutecky, V. Experimental and theoretical studies of the absorption properties of thiolated diamondoids. *J. Chem. Phys.* **2010**, *132*, 144305 (6p).
78. Roth, S.; Leuenberger, D.; Osterwalder, J.; Dahl, J. E.; Carlson, R. M. K.; Tkachenko, B. A. Fokin, A. A.; Schreiner, P. R., Hengsberger, M. Negative-electron-affinity diamondoid monolayers as high-brilliance source for ultrashort electron pulses. *Chem. Phys. Lett.* **2010**, *495*, 102-108.
79. Dvorko, G. F.; Ponomareva, E. A. Effect of nucleophilic solvent on the kinetic parameters of the reactions of unimolecular heterolysis. Mechanism of the covalent bond heterolysis. *Russ. J. Gen. Chem.* **2010**, *80*, 1615-1625.
80. Lysenko, A. B.; Senchyk, G. A.; Lincke, J.; Lässig, D.; Fokin, A. A.; Butova, E. D.; Schreiner, P. R.; Krautscheid, H.; Domasevitch, K. V. Metal oxide-organic frameworks (MOOFs), a new series of coordination hybrids constructed from molybdenum(VI) oxide and bitopic 1,2,4-triazole linkers. *Dalton Trans.*, **2010**, *39*, 4223-4231.
81. Demchenko, P. Yu.; Gladyshevskii, R. E.; Volkov, S. V.; Kharkova, L. B.; Yanko, O. G.; Fokina, Z. A.; Fokin, A. A. The first nonaselenium ring. *Chem. Commun.*, **2010**, *46*, 4520-4522.
82. Shubina, T.E. Computational studies on properties, formation and complexation of M(II)-porphyrins, *Adv. Inorg. Chem.*, **2010**, *62*, 261-300.
83. Shubina, T.E.; Clark T. CO and NO complexes of Fe(II) and Co(II) porphyrins. *J. Coord. Chemistry*, **2010**, *63*, 2854-2867.
84. Lieb, D.; Zahl, A.; Shubina, T.E.; Ivanovic-Burmazovic I. Water exchange on Manganese (III) porphyrins. Mechanistic Insights Relevant for Oxygen Evolving Complex and Superoxide Dismutation Catalysis. *J. Am. Chem. Soc.* **2010**, *132*(21), 7282-7284.

85. Shubina, T.E.; Clark T. Electron-Transfer Catalysis of the Norbornadiene to Quadricyclane Rearrangement. *Z. Naturforsch.* **2010**, 65b, 347–356.
86. Sibgatulin, D.A.; Shubina, T.E.; Kostyuk, A.N.; Volochnyuk, D.M.; Schmutzler, R.; Jones, P.G.; Pinchuk A.M. reaction of enamines with trifluoromethyl containing carbonyl reagents. *J. Fluorine Chem.*, **2010**, 131, 190–199.
87. Гайдай А.В., Черенкова О.А., Левандовский И.А., Шубина Т.Е. Синтез новых производных D_3 -трисгомокубана. *ЖОрХ*, **2010**, 46, 765–767.
88. Писаненко Д.А., Палий Г.К., Крючкова В.Т. Синтез и антимикробная активность циклопентилзамещенных галоидфеноксисукусных кислот и их амидов. *Хим.фарм.журн.*, **2010**, 44, № 8, с. 22–24.
89. Писаненко Д.А., Авилов В.О., Лихницкий К.В. Антикоррозионные свойства продуктов кватернизации хлорметилированными бензилтолуолами. *Журн.прикл.химии*, **2010**, 83, № 9, с.1567-1569.
90. Yurchenko, R. I.; Bludenko, A. V.; Yurchenko, A. G. Effect of intermolecular synergy in inhibiting action of 1-phenacylmethylpyridinium halides. *Russ. J. Appl. Chem.* **2010**, 83, 519-521
91. Левандовский И.А., Шарапа Д.И., Черенкова О.А., Гайдай А.В., Шубина Т.Е. Химия D_3 -трисгомокубана. *Успехи химии*, **2010**, 79, №11, с. 1089-1111.
92. Butova, E. D.; Barabash, A. V.; Petrova, A. A.; Kleiner, C. M.; Schreiner, P. R.; Fokin. A. A. Stereospecific consecutive epoxide ring expansion with dimethylsulfoxonium methylide, *J. Org. Chem.* **2010**, 75, 18, 6229–6235.
93. Yurchenko, R. I.; Bludenko, A. V.; Yurchenko, A. G. Effect of intermolecular synergy in inhibiting action of 1-phenacylmethylpyridinium halides. *Russ. J. Appl. Chem.* **2010**, 83, 519-521.
94. Serguchev, Yu. A.; Ponomarenko, M. V.; Lourie, L. F.; Fokin, A. A. Transannular additions of selectfluor and xenon difluoride: regioselectivity and mechanism. *J. Phys. Org. Chem.* **2011**, 24, 407–413.
95. Shubina, T. E.; Fokin, A. A. Hydrocarbon σ -radical cations. *WIREs Comput. Mol. Sci.* **2011**, 1 661– 679.
96. Novikovskii, A. A.; Gunchenko P. A.; Prikhodchenko P. G.; Serguchev, Yu. A.; Schreiner P. R.; Fokin A.A. Comparative theoretical and experimental analysis of hydrocarbon σ -radical cations. *Zhurn. Org. Khim.* **2011**, 47, 1293–1299.
97. Levandovskiy I.A.; Sharapa D.I.; Shamota T.V.; Rodionov V.N.; Subina T.E. Conformationally restricted GABA analogs: from rigid carbocycles to cage hydrocarbons. *Future Med. Chem.* **2011**, V. 3, 2, 223-241.
98. Юрченко Р.И., Милешкин А.Н., Клишко Ю.Е., Толмачев А.А. Галогенирование и нитрозирование 2-(адаманти-1)индолизина. *ЖОрХ*. **2011**. 47, 10, С. 56

99. Писаненко Д. А., Клишко Ю. Е., Лихницкий К. В.. Синтез и антикоррозионные свойства N-арилникотинамидов и их производных -3-(N-арилкарбоксамидо) -N-бензилпиридинийхлоридов. *Журн. Прикл. Хим.* **2011**, 84, 8, 1384–1386.
100. Sharapa D. I.; Gayday A. V.; Mitlenko A. G.; Levandovskiy I.A.; Shubina T.E. A Convenient Road to 1-Chloropentacycloundecanes - A Joint Experimental and Computational Investigation. *Eur. J. Org. Chem.* **2011**, 13, 2554-2561
101. Schreiner, P. R.; Chernish, L. V.; Gunchenko, P. A.; Tikhonchuk, E. Yu.; Hausmann, H.; Serafin, M.; Schlecht, S.; Dahl J. E. P.; Carlson, R. M. K.; Fokin, A. A. Overcoming lability of extremely long alkane carbon-carbon bonds through dispersion forces. *Nature*, **2011**, 477, 308–311.
102. Pisanenko, D. A.; Klimko, Yu E.; Likhmitskii, K. V. Synthesis and anticorrosion properties of N-arylnicotinamides and their derivatives: 3-(N-arylcarboxamido)-N-benzylpyridinium chlorides, *Russ. J. Appl. Chem.* **2011**, 84, 1445–1447.
103. Rodionov, V. N.; Sklyarova, A. S.; Shamota, T. V.; Schreiner, P. R.; Fokin, A. A. Selective reductive dimerization of homocubane series oximes. *Russ. J. Org. Chem.*, **2011**, 47, 11, 1695–1702.
104. Fokin, A. A.; Gerbig, D.; Schreiner, P. R. σ/σ - and π/π -Interactions are equally important: multilayered graphanes. *J. Am. Chem. Soc.* **2011**, 133, 20036–20039.
105. Gaidai, A. V.; Volochnyuk, D. M.; Shishkin, O. V.; Fokin, A. A.; Levandovskiy, I. A.; Shubina, T. E.. *D*₃-Trishomocubane-4-carboxylic acid as a new chiral building block: Synthesis and absolute configuration. *T. E. Synthesis*, **2012**, 44, 810–816
106. Yurchenko, R. I.; Dolina, A. V.; Yurchenko, A. G. Comparative effect of N-decyl- and N-phenacilmethylpyridinium bromides in acid corrosion of steel. *Russ. J. Appl. Chem.* **2012**, 84, 2008–2010
107. Yurchenko, R. I.; Dolina, A. V.; Yurchenko, A. G.. Inhibiting action of 1-phenacilmethyl-2-R-quinolinium bromides at steel acid corrosion *Russ. J. Appl. Chem.* **2012**, 84, 2011-2012
108. Yurchenko, R. I.; Dolina, A. V.; Yurchenko, A. G. Intermolecular synergy effect on the inhibiting action of N-phenacilmethylquinolinium halides *Russ. J. Appl. Chem.* **2012**, 84, 2013-2014.
109. Yurchenko, R. I.; Dolina, A. V.; Yurchenko, A. G. Inhibiting action of N-phenacilmethylheterylazolium bromides under conditions of acid steel corrosion. *Russ. J. Appl. Chem.* **2012**, 84, 2015-2017
110. Yurchenko, R. I.; Savina, N. S.; Klimko, Yu. E. Reactions of phosphorus trihalides with 6-(adamantan-1-yl)imidazo[2,1-b]thiazoles. *Russ. J. Gen. Chem.* **2012**, 81, 2375–2376.
111. Gunchenko, P. A.; Fokin, A. A. Mechanisms of activation of C–H bonds in framework compounds: Theory and experiment. *Theoret. and Experim. Khim.* **2012**, 47, 6, 343–360.

112. Fokin, A. A.; Chernish, L. V.; Gunchenko, P. A.; Tikhonchuk, E. Yu.; Hausmann, H.; Serafin, M.; Dahl, J. E. P.; Carlson, R. M. K.; Schreiner, P. R. Stable alkanes containing very long carbon–carbon bonds. *J. Am. Chem. Soc.* **2012**, *134*, 13641–13650.
113. Ishiwata, H.; Acremann, Y.; Scholl, A.; Rotenberg, E.; Hellwig, O.; Dobisz, E.; Doran, A.; Tkachenko, B.A.; Fokin, A.A.; Schreiner, P.R.; Dahl, J.E.P.; Carlson, R.M.K.; Melosh, N.; Shen, Z.-X.; Oldag, H. Diamondoid coating enables disruptive approach for chemical and magnetic imaging with 10 nm spatial resolution. *Appl. Phys. Lett.* **2012**, *101*, 163101 (5 p).
114. Sharapa, D. I.; Levandovskiy, I.A.; Shubina, T.E. Axial D-3-trishomocubane Derivatives with Potential: Dreams or Reality? *Curr. Org. Chem.* **2012**, *22*, 2623–2651.
115. Clay, W. A.; Maldonado, J. R.; Pianetta, P.; Dahl, J. E. P.; Carlson, R. M. K.; Schreiner, P. R.; Fokin, A. A.; Tkachenko, B. A.; Melosh, N.; Shen, Z.-X. Photocathode device using diamondoid and cesium bromide films *Appl. Phys. Lett.* **2012**, *101*, 241605 (5p).
116. Sklyarova, A. S.; Rodionov, V. N.; Parsons, C. G.; Quack, G.; Schreiner, P. R.; Fokin, A. A. Preparation and testing of homocubyl amines as therapeutic NMDA receptor antagonists. *Med. Chem. Res.* **2013**, № 22, 360-366.
117. Fokin, A. A.; Butova, E. D.; Barabash, A. V.; Huu, N. N.; Tkachenko, B. A.; Fokina, N. A.; Schreiner, P. R. Preparative synthesis of vinyl diamondoids. *Synth. Comm.* **2013**, № 43, 1772-1777.
118. Zimmermann, T.; Richter, R.; Knecht, A.; Fokin, A. A.; Koso, T. V.; Chernish, L. V.; Gunchenko, P. A.; Schreiner, P. R.; Moller, T.; Rander, T. Exploring covalently bound diamondoid aggregates with valence photoelectron spectroscopy. *J. Chem. Phys.* **2013**, № 139, 084310 (6 p).
119. Li, F. H.; Fabbri, J. D.; Yurchenko, R. I.; Mileskin, A. N.; Hohman, J. N.; Yan, H.; Yuan, H.; Tran, I. C.; Willey, T. M.; Bagge-Hansen, M.; Dahl, J. E. P.; Carlson, R. M. K.; Fokin, A. A.; Schreiner, P. R.; Shen, Z.-X.; Melosh, N. A. Covalent attachment of diamondoid phosphonic acid dichlorides to tungsten oxide surfaces. *Langmuir*, **2013**, № 29, 9790-9797.
120. Mishura, A. M.; Sklyarova, A. S.; Sharapa, D. I.; Levandovsky, I. A.; Serafin, M.; Fokin, A. A.; Rodionov, V. N. Stereoselective Preparation of mono- and bis-derivatives of pentacyclo[6.3.0.02,6.03,10.05,9]undecane (D3-trishomocubane). *Cent. Eur. J. Chem.* **2013**, № 11, 2144-2150.
121. Kacharov, A. D.; Yemets, S. V.; Nemykin, V. N.; Kacharova, L. M.; Fokin, A. A.; Krasutsky, P. A. Stereoselectivity of A-ring contraction for 3-oxotriterpenoids. *RCS Advances*, **2013**, № 3, 19057-19063.
122. M. O. Chekanov, O. V. Ostrynska, S. S. Tarnavskiy, A. R. Synyugin, N. V. Briukhovetska, V. G. Bdzhola^{1,2}, A. E. Pashenk, A. A. Fokin, S. M. Yarmoluk. Design, synthesis and biological evaluation of 2-aminopyrimidinones and their 6-aza-analogs as a new class of 2 inhibitors. *J. Enz. Inhib. Med. Chem.* **2013**, DOI: 10.3109/14756366.2013.837898

123. M.V. Ponomarenko, K. Lummer, A. A. Fokin, Y. A. Serguchev, B. S. Bassil, G.-V. Rösenthaller. Preparations of SF₅- and CF₃-Substituted Arenes Utilizing the 7-oxabicyclo[2.2.1]hept-2-ene Synthones. *Org. Biomol. Chem.* **2013**, *11*, 8103–8112.
124. Gunawan, M. A.; Hierso, J.-C.; Poinso, D.; Fokin, A. A.; Fokina, N. A.; Tkachenko, B. A.; Schreiner, P. R. Diamondoids: Functionalization and subsequent applications of perfectly defined molecular cage hydrocarbons. *New J. Chem.* **2014**, *38*, 28–41.
125. Kahl, P.; Tkachenko, B. A.; Novikovskiy, A. A.; Backer, J.; Dahl, J. E. P.; Carlson, R. M. K.; Fokin, A. A.; Schreiner, P. R. Efficient preparation of alically substituted diamondoid derivatives, *Synthesis*, **2014**, *46*, 787–798.
126. Meinke, R.; Richter, R.; Merli, A.; Fokin, A. A.; Koso, T. V.; Rodionov, V. N.; Schreiner, P. R.; Thomsen, C.; Maultzsch, J. UV resonance Raman analysis of trishomocubane and diamondoid dimers. *J. Chem. Phys.* **2014**, *140*, 034309 (5p).
127. Fokin, A. A.; Zhuk, T. S.; Pashenko, A. E.; Osipov, V. V.; Gunchenko, P. A.; Serafin, M.; Schreiner, P. R. Functionalization of Homodiamantane: Oxygen Insertion Reactions without Rearrangement with Dimethyldioxirane. *J. Org. Chem.* **2014**, *79*, 1861–1866.