

XVI ANDRIANOV CONFERENCE

“ORGANOSILICON COMPOUNDS: SYNTHESIS, PROPERTIES, APPLICATIONS”

to the 120TH ANNIVERSARY of
ACADEMICIAN K.A. ANDRIANOV

3RD SCHOOL-CONFERENCE FOR YOUNG SCIENTISTS

“CHLORINE-FREE CHEMISTRY OF SILICONES”

Scientific Program

	Sunday, June 02
17:00 – 18:30	Registration
18:00 – 18:30	Opening Ceremony
18:30 – 19:15	P-1. Sergei S. Sheiko “Bottlebrush networks with active backbone”
19:15 – 20:30	Welcome party

	Monday, June 03
9:30 – 16:00	Registration
	Plenary lectures
	Chair: Sergei Sheiko
10:00 – 10:40	P-2. Maxim V. Bermeshev “Bis-silylation of olefins - an efficient approach to the synthesis of silicon-containing monomers”
10:40 – 11:20	P-3. Jie Zhang “Some new organosilicon reactions involved in preparation of silicon-containing polyester” online
11:20 – 11:50	Coffee break
	Chair: Xiaomin Zhu

11:50 – 12:30	P-4. Anton A. Anisimov “Stereoregular organocyclosilsesquioxanes are precursors for the production of silicones with well-defined structure”
12:30 – 13:10	P-5. Hongzhi Liu “Silsesquioxanes-based functional materials for multipurpose”
13:10 – 13:30	Discussion
13:30 – 15:00	Lunch
	Oral talks
	Chairs: Sergey Milenin, Fedor Drozdov
15:00 – 15:15	O-1. Alina Khmel'nitskaia “Vinyl-containing MQ-copolymers: synthesis and properties”
15:15 – 15:30	O-2. Andrey Kurbatov “Full-atomic molecular dynamics simulation of amphiphilic carbosilane dendrimers in homogeneous hydrophobic and hydrophilic environments”
15:30 – 15:45	O-3. Sofia Ardabevskaia “The synthesis and properties of hybrid dendrimers composed of a carbosilane core and polyphenylene shell by CuAAC”
15:45 – 16:00	O-4. Kseniya Bezlepina “Preparation of functional polysiloxanes by the reaction of ring-opening polymerization or catalytic rearrangement”
16:00 – 16:15	O-5. Vera Kudakina “Silylation of arylhalides in the presence of nickel complexes with diazabutadiene ligands”
16:15 – 16:30	O-6. Daria Lavrova “Silicon polyethylene glycolates and silicon glycerolates as perspective matrices for yeast cell encapsulation in sol-gel synthesis”
16:30– 16:45	O-7. Elizaveta Manokhina “The use of organosilicon derivatives of phenylboronic acids for the modification of silicones”
16:45 – 17:00	O-8. Ekaterina Minyaylo “Using ammonia as a reaction medium – a new approach to silicone synthesis and recycling”
17:00 – 17:30	Coffee break
17:30 – 17:45	O-9. Maksim Sokolov “Silicon carbide fibers with different coatings from new precursors”
17:45 – 18:00	O-10. Lei Li “Dynamic siloxane materials: from molecular engineering to performance manipulation”

18:00 – 18:15	O-11. Mikhail Khrizanforov “The path to organosiloxanes through electroreduction reactions of chlorine-free precursors”
18:15 – 18:30	O-12. Kirill Efimov “Anionic polymerization of hexamethylcyclotrisiloxane in ammonia, initiated by alcohols of various structures”

	Tuesday, June 04
10:00 – 16:00	Registration
	Plenary lectures
	Chair: Sergey Chvalun
10:00 – 10:40	P-6. Xiaomin Zhu “PEGylated polyethoxysiloxanes – unique amphiphilic silica precursor polymers for preparation of nanostructured silica particles”
10:40 – 11:20	P-7. Maxim N. Temnikov “Direct synthesis of organoalkoxysilanes”
11:20 – 11:50	Coffee break
	Chair: Maxim Temnikov
11:50 – 12:30	P-8. Sergey N. Chvalun “Molecular composites: myth or reality?”
12:30 – 13:10	P-9. Shengyu Feng “Preparation and properties of sulfone-containing polysiloxanes”
13:10 – 13:30	Discussion
13:30 – 15:00	Lunch
14:30 – 15:00	Coffee break
15:00 – 17:00	Presentation of the Silicon Partner of the Conference – Shandong Baolongda Industrial Group Co., Ltd. (China) Round table “Silicones: turning scientific breakthroughs into thriving business”
17:00 – 18:30	Coffee break Poster session 1 (S-1 – S-27)

	Wednesday, June 05
10:00 – 16:00	Registration
	Plenary lectures
	Chair: Anton Anisimov
10:00 – 10:40	P-10. Kirill V. Zaitsev “Tetrylenes and oligoorganotetrelanes: successes and challenges”
10:40 – 11:20	P-11. Dmitry G. Yakhvarov “Buchwald phosphine ligands in platinum catalyzed hydrosilylation”
11:20 – 11:50	Coffee break
	Chair: Maxim Temnikov
11:50 – 12:30	P-12. Regina M. Islamova “Silicone materials for flexible optoelectronics”
12:30 – 13:10	P-13. Sergey A. Milenin “Addition reactions for the synthesis and modification of organosilicon molecules”
13:10 – 13:30	Discussion
13:30 – 15:00	Lunch
	Oral talks
	Chairs: Sofia Ardabevskaia, Kseniya Bezlepina
15:00 – 15:15	O-13. Tatyana Ershova “Synthesis of ladder-like polyphenylsilsesquioxanes in ammonia medium and investigation of their properties”
15:15 – 15:30	O-14. Eleonora Kim “Luminescent composite films based on ladder-like polyphenylsilsesquioxane and oligophenyleuropiumsiloane”
15:30 – 15:45	O-15. Petr Shkinev “Search for new approaches to the obtaining of Janus dendrimers based on nature compounds”
15:45 – 16:00	O-16. Sofiiia Chepurnova “Synthesis and studying the properties of biocidal materials from organosilicon raw materials and PHMG”
16:00 – 16:15	O-17. Pavel Tokarev “Influence of the crosslinking agent of polydecylmethylsiloxane on the degree of its swelling in organic solvents”
16:15 – 16:30	O-19. Evgenia Grushevenko “Copolymer of polytrifluoroethylacrylatesiloxane and polydecylmethyl siloxane: a new polymer for membrane purpose”

16:30– 16:45	O-19. Ilya Krizhanovskiy “Sequential hydrothiolation and hydrosilylation – a new method for synthesis of polyfunctional organosilicon compounds”
16:45 – 17:00	O-20. Ekaterina Golovenko “Redox-active polysiloxanes for modification of carbon nanotubes”
16:45 – 18:30	Coffee break Poster session 2 (S-28 – S-54)

	Thursday, June 06
	Plenary lectures
	Chair: Maxim Bermeshev
10:00 – 10:30	P-14. Ekaterina S. Trankina “Application of aminolysis of cyclocarbonates in the synthesis siloxaneurethane oligomers and polymers”
10:30 – 11:00	P-15. Aleksandra A. Kalinina “Functional siloxane oligomers based on hydrolytic polycondensation of alkoxyxilanes: synthesis and application”
11:00 – 11:30	Coffee break
11:30 – 12:00	P-16. Fedor V. Drozdov “Oligo- and polysiloxanes with terminal and distributed functional groups for production of new materials”
12:00 – 12:30	Oral talks
12:00 – 12:15	O-21. Diana Borisova “Polyhydroxyfunctional methylsilsesquioxane defoaming agents”
12:15 – 12:30	O-22. Elena Katarzhnova “Hybrid carbosilane-cyclosiloxane dendrimers – a new platform for obtaining surfactants with controllable properties”
12:30 – 13:00	Closing Ceremony

Poster presentations

S-1. Lidia Alekseeva “Influence of spacer structure on the properties of polycarboranesiloxanes”

S-2. Tatyana Anokhina “A new membrane material – ladder-like polyphenylsilsesquioxane, promising for separation of gas and organic mixtures”

- S-3. Vasilissa Aristova "Synthesis of triazole-containing organotrialkoxysilanes and polysiloxanes, hydrolysis and condensation"
- S-4. Kirill Bakanov "Synthesis of PDMS with urethane fragments in the main polymer chain by azide-alkyne cycloaddition method for application in 3D printing"
- S-5. Ksenia Baranova "Investigation of the effect of mercaptopropylsilsesquioxane oligomers on the properties of varnishes based on modified oligoesters"
- S-6. Ekaterina Bashkova "Use of alkali metal hydroxides in the synthesis of monomeric organosilicon compounds"
- S-7. Irina Belikova "Synthesis of functional organosilicon monomers and polymers using a new type of heterogeneous CuAAC catalyst"
- S-8. Kirill Borisov "Obtaining hollow particles from silicasol"
- S-9. Anna Chugunova "Synthesis of polymer matrix - poly(dimethylvinylsiloxy)vinylsiloxane"
- S-10. Dmitriy Efimenko "Interaction of allylgermanes with arylmethylchlorosilanes"
- S-11. Lyubov Filimonova "Influence of geometric isomerism of H₁₂-MDI on the properties of polysiloxanurethane ureas based on it"
- S-12. Inga Frank "The use of sequential hydrothiolation and hydrosilylation reactions for the synthesis of functional oligomers and polymers"
- S-13. Tatyana Ilina "Synthesis of coordination polymers cross-linked by organometallosiloxanes"
- S-14. Denis Kalmykov "Membranes based on ladder-like polyphenylsilsesquioxane for deoxygenation of alkanolamine CO₂ absorbent in liquid-liquid contactors"
- S-15. Olga Kamanina "The selectivity of the bioreceptor element of the sensor, based on an organosilicon material and on microorganism cells"
- S-16. Arevik Khchoyan "Synthesis and properties of emitters based on siloxane matrices and 9,10-diphenylanthracene for up-conversion systems"
- S-17. Svyatoslav Kirichenko "Comparative analysis of the composition of MQ-resins of «The kerkuri» series"
- S-18. Galina Komarova "Preparation of nanospherical silica by hydrolytic polycondensation of teos catalyzed by 2-amino-2-methyl-1-propanol"
- S-19. Galina Komarova "Preparation of nanohybrid fibroin/silica adsorbents for separation and medical applications"
- S-20. Svetlana Konsurova "investigation of surface grafting of polymeric coatings with oligoorganosiloxanes"

- S-21. Vladimir Krasovskiy "Monocationic ionic liquids with a siloxane substituent in the cation"
- S-22. Fedor Krylov "Influence of the type of alkoxy group on the degree of its substitution in the Grignard reaction with allyl chloride"
- S-23. Alena Lakomkina "Hydrosilylation in paper siliconization"
- S-24. Elizaveta Lantsova "Formation of silicon-containing porous carrier materials using bacterial cells"
- S-25. Kirill Litvin "Full-atomic molecular dynamics simulation of amphiphilic carbosilane dendrimers at the phase boundary"
- S-26. Egor Litvinov "Polymethylsilsesquioxane oligomers - environmentally friendly binder for particleboard"
- S-27. Anton Malakhov "Synthesis of organosilicon oligomers by hydrolytic co-condensation of alkoxy silanes and disiloxanes"
- S-28. Denis Mironov "Silylation of nitrogen-containing compounds in an active medium using trimethylsilylimidazole and hexamethyldisilazane"
- S-29. Ekaterina Olenich "Thermal resistant polydimethyl(methylbenzyl)siloxanes: synthesis and properties"
- S-30. Mariya Parshina "Thermal characteristics of epoxy-metallosiloxane compositions filled with phenylsiloxane resins"
- S-31. Oleg Pererva "Synthesis of tetramethoxysilane from microsilica (industrial waste)"
- S-32. Semen Pletnev "The role of metal catalysis and functionality of metallosiloxane in the process of formation of metallosiloxane-epoxy material"
- S-33. Andrey Ratnikov "Modification of petroleum resins with organosilicon compounds and production of anti-corrosion coatings based on them"
- S-34. Viktoriya Revenko "Synthesis of polydiethylsiloxane macromonomers"
- S-35. Yuliya Rozanova "Composite materials based on hyperbranched polyorganoalkoxysiloxanes with silver and gold nanoparticles"
- S-36. Irina Ruskol "Synthesis of oligo methyl(3,3,3-trifluoropropyl)siloxanes with hydride functional groups"
- S-37. Aleksei Ryzhkov "Synthesis and investigation of properties of a new class of amphiphilic carbosilane Janus-dendrimers using natural compounds"
- S-38. Anastasiia Samorodnova "Direct electrochemical functionalization of $(\text{SiO}_2)_n$ through the generation of methyl radicals for the synthesis of organosiloxanes"

- S-39. Dmitriy Sedov "Synthesis of biodegradable surfactant for soil wetting"
- S-40. Alina Selifonova "Hydrolytic polycondensation of monosodiumoxy(methyl)(diethoxy)silane in conditions of excess water"
- S-41. Marina Shagidanova "Investigation of the biocidal properties of organosilicon derivatives of guanidine"
- S-42. Albina Shakirova "Synthesis and study of the properties of ladder-like polyphenylsilsesquioxanes obtained from cis-hexaphenylcyclohexasiloxanehexaol and phenylsilanetriol"
- S-43. Ivan Shakurov "Research of the process of catalytic hydrosilylation of olefin derivatives of sydnones"
- S-44. Elena Shutko "The use of dimethyl(chloromethyl)chlorosilane in the synthesis of silicon derivatives of pyrrole"
- S-45. Danil Solodukhin "Synthesis of siloxane rubbers with perfluoroalkyl substituents"
- S-46. Evgeniya Talalaeva "Directed synthesis of 1,5-dihydroxy,1,1,3,3,5,5-hexamethyltrisiloxane and mixed cyclosiloxanes on its base"
- S-47. Anastasiya Trishina "Hydrolytic polycondensation of dimethyldiethoxysilane in an active medium in the presence of hexamethyldisiloxane"
- S-48. Roman Ulyankin "Azidopropyl telechelic polydimethylsiloxanes with grafted siloxane fragments"
- S-49. Sergey Vasilev "The influence of the microstructure of porous silsesquioxanes on spin dynamics according to solid-state ^1H , ^{13}C and ^{29}Si NMR data"
- S-50. Ilya Volkov "Thermal transformations in cage-like metal organosiloxanes"
- S-51. Ilya Volkov "Siloxane-ethylene oxide-urethane block copolymers: synthesis and properties"
- S-52. Nikita Yakhontov "Catalyst-free Hydrolytic Polycondensation of Tetraethoxysilane under Microwave Radiation"
- S-53. Kirill Zaitsev "1,2-bis(triazolyl)digermanes: synthesis, structure, useful properties"
- S-54. Valeriya Zubova "Synthesis and study of the properties of model star-shaped polymers obtained by the "grafting-onto" and "core first" method"
- S-55. Pavel Pimenov "Synthesis and surfactant properties investigation of organosilicon compounds based on monoallyl ether of oligoethylene oxide"
- S-56. Kseniia Klokova "Hybrid dendrimers containing phenylated core and siloxane shell"