Curriculum Vitae

Dr. Alexander S. Novikov

Scopus ID: 50262902200

E-mails: a.s.novikov@spbu.ru

Mobile: +7 981 958 0247

Personal Information

Nationality:

Russian

Date of birth:

June, 6th, 1988

Place of birth:

Moscow, USSR

Gender:

Male

Marital status:

Single

Languages:

Russian (native), English (fluent), Portuguese (intermediate)

Working Addresses:

Institute of Chemistry, Saint Petersburg State University, Universitetsky pr. 26, 198504, Stary Petergof, Russia – Senior Researcher

Research Interests

Fields of expertise:

- ✓ Quantum and Computational Chemistry
- ✓ Inorganic and Coordination Chemistry
- ✓ Organometallic Chemistry and Catalysis

Present investigation interests:

- ✓ Non-covalent interactions in coordination and organometallic chemistry
- ✓ Ligand reactivity and catalysis
- ✓ Functionalization of hydrocarbons

Degrees

2013

"Candidate of Sciences" degree (an equivalent to Ph.D.)

Degree was awarded on December, 12th, 2013 at the Saint Petersburg State University, Saint Petersburg, Russia

Specialty: "Inorganic Chemistry"

Title of the Ph.D. thesis: "Study of transition metal complexes featuring isocyanide ligands in cycloaddition with nitrones"

Highest marks for all Ph.D. exams and unanimous vote for awarding the scientific degree (*summa cum laude*)

2010

Diploma of Higher Education at the Department of Chemistry, Moscow State Pedagogical University, Moscow, Russia

Specialty: "Chemistry" with supplementary specialty "Pedagogy and Psychology"

Title of the diploma thesis: "Quantum chemical study of the structure and acidity of metals III A group aqua complexes"

The highest rank student ("red" diploma – *summa cum laude*) with excellent marks for all exams (the final media is 5.00 in the scale of 0–5)

Previous Employment

Department of Chemistry, University of Jyväskylä, Jyväskylä, Finland – Invited Lecturer (2019) *Topic: "Computer modeling in chemistry and materials science" course for PhD and MSc students*

Biocenter Oulu and Faculty of Biochemistry and Molecular Medicine, University of Oulu, Oulu, Finland – Invited Lecturer (2019) *Topic: "Density functional theory calculations in organometallic and coordination chemistry: reactivity, catalysis, and non-covalent interactions"*

Department of Chemistry, Uppsala University, Uppsala, Sweden – Invited Lecturer (2019) *Topic: "Density functional theory calculations in organometallic and coordination chemistry: reactivity, catalysis, and non-covalent interactions" course for PhD students*

Department of Chemistry, University of Jyväskylä, Jyväskylä, Finland – Invited Lecturer (2018) *Topic: "Materials modeling" course for PhD and MSc students*

Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal – Visiting Researcher (2017) *Topic: Non-covalent interactions*

Department of Chemistry, University of Jyväskylä, Jyväskylä, Finland – Visiting Researcher / Invited Lecturer (2017) *Topic: Non-covalent interactions / "Quantum and Computational Chemistry" course for PhD students*

Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal – Visiting Researcher (2016) *Topic: Non-covalent interactions*

Department of Chemistry, University of Jyväskylä, Jyväskylä, Finland – Visiting Researcher (2015) *Topic: Non-covalent interactions*

Institute of Chemistry, Saint Petersburg State University, Saint Petersburg, Russia – Postdoctoral Fellow (2014–2015) *Topic: Non-covalent interactions and catalysis*

Centro de Química Estrutural, Instituto Superior Técnico, Lisbon, Portugal – Postdoctoral Fellow (2014) *Topic: Catalysis*

Department of Chemistry, Moscow State Pedagogical University, Moscow, Russia – Engineer (2013–2014) *Topic: Computational chemistry*

Centro de Química Estrutural, Instituto Superior Técnico, Lisbon, Portugal – Research Grantee [Master] (2012–2013) *Topic: Catalysis*

Centro de Química Estrutural, Instituto Superior Técnico, Lisbon, Portugal – Research Grantee [BIC] (2011) *Topic: Organometallic chemistry*

Research Experience

- Senior Researcher at the Institute of Chemistry, Saint Petersburg State University, (Saint Petersburg, Russia): PI of two research projects funded by Russian Foundation for Basic Research [project No. 16-33-60063 (2016–2018); project No. 16-33-00212 (2016–2017)], collaborator on several research projects funded by Saint Petersburg State University, Russian Foundation for Basic Research and Russian Science Foundation (2016–present)

- Short-term visit to the research group of Prof. Matti Haukka at the Department of Chemistry, University of Jyväskylä (Jyväskylä, Finland) [Inter-university exchange cooperation agreement between Saint Petersburg State University and University of Jyväskylä / Finnish-Russian Student and Teacher Exchange Programme (FIRST+)] (2019)

- Short-term visit to the research group of Dr. André H. Juffer at the Biocenter Oulu and Faculty of Biochemistry and Molecular Medicine, University of Oulu (Oulu, Finland) [Finnish-Russian Student and Teacher Exchange Programme (FIRST+)] (2019)

- Short-term visit to the research group of Prof. Kersti Hermansson at the Department of Chemistry, Uppsala University (Uppsala, Sweden) [Erasmus+ International Credit Mobility] (2019)

- Short-term visit to the research group of Prof. Matti Haukka at the Department of Chemistry, University of Jyväskylä (Jyväskylä, Finland) [Finnish-Russian Student and Teacher Exchange Programme (FIRST+)] (2018)

- Internship (Visiting Researcher) at the Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa (Lisbon, Portugal) under supervision of Prof. M.L. Kuznetsov [Grant 12.55.1281.2017, Saint Petersburg State University, Russia] (2017)

- Internship (Visiting Researcher) at the Department of Chemistry, University of Jyväskylä (Jyväskylä, Finland) under supervision of Prof. Matti Haukka [Finnish-Russian Student and Teacher Exchange Programme (FIRST)] (2017)

- Internship (Visiting Researcher) at the Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa (Lisbon, Portugal) under supervision of Prof. M.L. Kuznetsov [Grant 12.55.1270.2016, Saint Petersburg State University, Russia] (2016)

- Research grant contract (Post-Doctoral Scholarship) at the Institute of Chemistry, Saint Petersburg State University, (Saint Petersburg/Stary Petergof, Russia) under supervision of Prof. V.Yu. Kukushkin [Grant 12.50.1190.2014, Saint Petersburg State University, Russia] (2014–2015)

- Research contract (Visiting Researcher) at the Department of Chemistry, University of Jyväskylä (Jyväskylä, Finland) under supervision of Prof. Matti Haukka [Grant 12.53.1647.2014, Russian Science Foundation, Russia] (2015)

- Research grant contract (Post-Doctoral Scholarship) at the Centro de Química Estrutural, Instituto Superior Técnico (Lisbon, Portugal) under supervision of Dr. M.L. Kuznetsov and Prof. A.J.L. Pombeiro [Project PTDC/QUI-OUI/119561/2010 (RD 0188), Fundação para a Ciência e a Tecnologia, Portugal] (2014)

- Research grant contract (Research Scholarship – Master) at the Centro de Química Estrutural, Instituto Superior Técnico (Lisbon, Portugal) under supervision of Dr. M.L. Kuznetsov and Prof. A.J.L. Pombeiro [Project PTDC/QUI-OUI/119561/2010 (RD 0188), Fundação para a Ciência e a Tecnologia, Portugal] (2012–2013)

- Research scholarship contract (Scientific initiation grants – BIC) at the Centro de Química Estrutural, Instituto Superior Técnico (Lisbon, Portugal) under supervision of Dr. M.L. Kuznetsov and Prof. A.J.L. Pombeiro [Project PTDC/QUI-OUI/102150/2008 (proj.3552), Fundação para a Ciência e a Tecnologia, Portugal] (2011)

Teaching Activities

Teaching activity at the University level

Lecture and practical course “Computer modeling in chemistry and materials science” for PhD and MSc students at the University of Jyväskylä, Department of Chemistry [June, 2019, Jyväskylä, Finland]

Lecture “Density functional theory calculations in organometallic and coordination chemistry: reactivity, catalysis, and non-covalent interactions” at the University of Oulu, Biocenter Oulu and Faculty of Biochemistry and Molecular Medicine [May, 2019, Oulu, Finland]

Lecture and practical course “Density functional theory calculations in organometallic and coordination chemistry: reactivity, catalysis, and non-covalent interactions” for PhD students at the Uppsala University, Department of Chemistry [May, 2019, Uppsala, Sweden]

Lecture course “Materials modeling” for PhD and MSc students at the University of Jyväskylä, Department of Chemistry [April, 2018, Jyväskylä, Finland]

Practical course “Quantum and Computational Chemistry” for PhD students at the University of Jyväskylä, Department of Chemistry [June, 2017, Jyväskylä, Finland]

Lecture course “Bioinorganic Chemistry” for Master in Chemistry students at the Moscow State Pedagogical University, Department of Chemistry [November, 2013, Moscow, Russia]

Lecture course “Toxicological Chemistry” for Master in Chemistry students in the Moscow State Pedagogical University, Department of Chemistry [February–May, 2012, Moscow, Russia]

Teaching activity at the High-School level

Teaching Assistant at the High School №1319 with advanced learning of English [September–December, 2009, Moscow, Russia]

Teaching Assistant at the High School №46 [February–March, 2009, Moscow, Russia]

Publications (h-index = 18)

1. Adonin S.A., **Novikov A.S.**, Sokolov M.N., Fedin V.P. “Heteroleptic Cu(II) iodoacetate complex: appearance of halogen bonding in solid state” // *Inorg. Chem. Commun.* 2019, V. 105. P. 221.
2. Guranova N.I., Dar’in D., Kantin G., **Novikov A.S.**, Bakulina O., Krasavin M. “Fused vs. spiro: kinetic, not thermodynamic preference may direct the reaction of α-carbonyl oxonium ylides” // *Tetrahedron Lett.* 2019, V. 60. P. 1582.
3. Deriabin K.V., Lobanovskaia E.K., **Novikov A.S.**, Islamova R.M. “Platinum-catalyzed reactions between Si-H groups as a new method for cross-linking of silicones” // *Org. Biomol. Chem.* 2019, V. 17. P. 5545.
4. Adonin S.A., Petrov M.D., **Novikov A.S.**, Shiriyazdanov R.R., Sokolov M.N., Fedin V.P. “2-Chlorobenzoate complex of Cu(II): unexpected appearance of halogen•••halogen contacts in solid state” // *J. Clust. Sci.* 2019, V. 30. P. 857.
5. Adonin S.A., **Novikov A.S.**, Sokolov M.N. “Polymeric lead(II) iodoacetate: Pb•••I and I•••I non-covalent interactions in solid state” // *Eur. J. Inorg. Chem.* 2019, In press. DOI: 10.1002/ejic.201900349
6. Katkova S.A., Mikherdov A.S., Kinzhalov M.A., **Novikov A.S.**, Zolotarev A.A., Boyarskiy V.P., Kukushkin V.Yu. “(Isocyano group π-hole)•••[d_z^2-M^{II}] interactions at (isocyanide)[M^{II}] complexes, where positively charged metal centers (d^8M = Pt, Pd) act as nucleophiles” // *Chem. Eur. J.* 2019, In press. DOI: 10.1002/chem.201901187 [**Hot Paper**]
7. Usoltsev A.N., Adonin S.A., **Novikov A.S.**, Sokolov M.N., Fedin V.P. “Halogen bonding-assisted formation of one-dimensional polybromide-bromotellurate (2-

ClPyH)$_2${[TeBr$_6$](Br$_2$)}" // *J. Coord. Chem.* 2019, In press. DOI: 10.1080/00958972.2019.1625040

8. Gorokh I.D., Adonin S.A., **Novikov A.S.**, Usoltsev A.N., Plyusnin P.E., Korolkov I.V., Sokolov M.N., Fedin V.P. "Halobismuthates with 3-iodopyridinium cations: halogen bonding-assisted crystal packing" // *Polyhedron* 2019, V. 166. P. 137
9. Il'in M.V., Bolotin D.S., **Novikov A.S.**, Kolesnikov I.E., Suslonov V.V. "Platinum(II)-mediated aminonitrone-isocyanide interplay: a new route to acyclic diaminocarbene complexes" // *Inorg. Chim. Acta* 2019, V. 490. P. 267.
10. Adonin S.A., Gorokh I.D., **Novikov A.S.**, Usoltsev A.N., Sokolov M.N., Fedin V.P. "Tetranuclear anionic bromobismuthate [Bi_4Br_{18}]$^{6-}$: new structural type in halometalate collection" // *Inorg. Chem. Commun.* 2019, V. 103. P. 72.
11. Guranova N.I., Dar'in D., Kantin G., **Novikov A.S.**, Bakulina O., Krasavin M. "Rh(II)-catalyzed spirocyclization of α-diazo homophthalimides with cyclic ethers" // *J. Org. Chem.* 2019, V. 84. P. 4534.
12. Tskhovrebov A.G., **Novikov A.S.**, Odintsova O.V., Mikhaylov V.N., Sorokoumov V.N., Serebryanskaya T.V., Starova G.L. "Supramolecular polymers derived from the Pt^{II} and Pd^{II} Schiff base complexes via C(sp^2)–H•••Hal hydrogen bonding: combined experimental and theoretical study" // *J. Organomet. Chem.* 2019, V. 886. P. 71.
13. Rozhkov A.V., Krykova M.A., Ivanov D.M., **Novikov A.S.**, Sinelshchikova A.A., Volostnykh M.V., Konovalov M.A., Grigoriev M.S., Gorbunova Y.G., Kukushkin V.Yu. "Reverse arene sandwich structures based upon π-hole•••[M^{II}](d^8M = Pt, Pd) interactions, where positively charged metal centers play the role of a nucleophile" // *Angew. Chem. Int. Ed.* 2019, V. 58. P. 4164. [**highlighted on cover**]
14. Kryukova M.A., Sapegin A.V., **Novikov A.S.**, Krasavin M., Ivanov D.M. "New crystal forms for biologically active compounds. Part 1: Noncovalent interactions in adducts of nevirapine with XB donors" // *Crystals* 2019, V. 9. P. 71.
15. Reutskaya E., Osipyan A., Sapegin A., **Novikov A.S.**, Krasavin M. "Re-thinking hydrolytic imidazoline ring expansion: a common approach to the preparation of medium-sized rings via side chain insertion into [1.4]oxa- and [1.4]thiazepinone scaffold" // *J. Org. Chem.* 2019, V. 84. P. 1693. [**Featured article status, highlighted on cover**]
16. Dabranskaya U., Ivanov D.M., **Novikov A.S.**, Matveychuk Yu.V., Bokach N.A., Kukushkin V.Yu. "Metal-involving bifurcated halogen bonding C–Br•••η^2(Cl–Pt)" // *Cryst. Growth Des.* 2019, V. 19. P. 1364.
17. Adonin S.A., Bondarenko M.A., **Novikov A.S.**, Abramov P.A., Plyusnin P.E., Sokolov M.N., Fedin V.P. "Halogen bonding-assisted assembly of bromoantimonate(V) and polybromide-bromoantimonate-based frameworks" // *CrystEngComm* 2019, V. 21. P. 850.
18. Adonin S.A., Gorokh I.D., Samsonenko D.G., **Novikov A.S.**, Korolkov I.V., Plyusnin P.E., Sokolov M.N., Fedin V.P. "Binuclear and polymeric bromobismuthate complexes: crystal structures and thermal stability" // *Polyhedron* 2019, V. 159. P. 318.
19. Eliseeva A.A., Ivanov D.M., **Novikov A.S.**, Kukushkin V.Yu. "Recognition of π-hole donor ability of iodopentafluorobenzene – a conventional σ-hole donor for crystal engineering involving halogen bonding" // *CrystEngComm* 2019, V. 21. P. 616.
20. Gorokh I.D., Adonin S.A., **Novikov A.S.**, Sokolov M.N., Samsonenko D.G., Fedin V.P. "Polybromides of pyridinium and quinolinium-type cations: cation-induced structural

diversity and theoretical analysis of Br•••Br interactions" // *J. Mol. Struct.* 2019, V. 1179, P. 725.

21. Kinzhalov M.A., Baykov S.V., **Novikov A.S.**, Haukka M., Boyarskiy V.P. "Intermolecular hydrogen bonding H•••Cl in crystal structure of palladium(II)-bis(diaminocarbene)complex" // *Z. Kristallogr. Cryst. Mater.* 2019, V. 234. P. 155.
22. Il'in M.V., **Novikov A.S.**, Bolotin D.S. "Aminonitrone–iminohydroxamic acid tautomerism: theoretical and spectroscopic study" // *J. Mol. Struct.* 2019, V. 1176. P. 759.
23. Melekhova A.A., **Novikov A.S.**, Dubovtsev A.Yu., Zolotarev A.A., Bokach N.A. "Tris(3,5-dimethylpyrazolyl)methane copper(I) complexes featuring one disubstituted cyanamide ligand" // *Inorg. Chim. Acta* 2019, V. 484. P. 69.
24. Kryukova M.A., Sapegin A.V., **Novikov A.S.**, Krasavin M., Ivanov D.M. "Non-covalent interactions observed in nevirapinium pentaiodide hydrate which include the rare I_4–I^- •••O=C halogen bonding" // *Z. Kristallogr. Cryst. Mater.* 2019, V. 234. P. 101.
25. Zelenkov L.E., Ivanov D.M., Avdontceva M.S., **Novikov A.S.**, Bokach N.A. "Tetrachloromethane as halogen bond donor toward metal-bound halides" // *Z. Kristallogr. Cryst. Mater.* 2019, V. 234. P. 9.
26. Popov R.A., **Novikov A.S.**, Mikherdov A.S. "Synthesis of mixed-ligand nitrile and carbonyl–isocyanide complexes of platinum(II) and their reaction with p-toluenesulfonyl hydrazide" // *Russ. J. Gen. Chem.* 2018, V. 88. P. 2347.
27. **Novikov A.S.**, Ivanov D.M., Bikbaeva Z.M., Bokach N.A., Kukushkin V.Yu. "Noncovalent interactions involving iodofluorobenzenes: the interplay of halogen bonding and weak lp(O)•••π-hole$_{arene}$ interactions" // *Cryst. Growth Des.* 2018, V. 18. P. 7641.
28. Adonin S.A., Gorokh I.D., **Novikov A.S.**, Samsonenko D.G., Yushina I.V., Sokolov M.N., Fedin V.P. "Halobismuthates with halopyridinium cations: appearance or non-appearance of unusual colouring" // *CrystEngComm* 2018, V. 20. P. 7766.
29. Gorokh I.D., Adonin S.A., Abramov P.A., **Novikov A.S.**, Sokolov M.N., Fedin V.P. "New structural type in polybromide-bromometalate hybrids: $(Me_3NH)_3\{[Bi_2Br_9](Br_2)\}$ – crystal structure and theoretical studies of non-covalent Br•••Br interactions" // *Inorg. Chem. Commun.* 2018, V. 98. P. 169.
30. Kinzhalov M.A., Parfenova S.N., **Novikov A.S.**, Katlenok E.A., Puzyk M.V., Avdontceva M.S., Bokach N.A. "Cyclometalated iridium(III) complexes featuring disubstituted cyanamides" // *ChemistrySelect* 2018, V. 3. P. 11875.
31. Panova Y.S., Sheyanova A.V., Zolotareva N.V., Sushev V.V., Arapova A.V., **Novikov A.S.**, Baranov E.V., Fukin G.K., Kornev A.N. "2,2′-Azobispyridine in phosphorus coordination chemistry: a new approach to 1,2,4,3-triazaphosphole derivatives" // *Eur. J. Inorg. Chem.* 2018, V. 2018. P. 4245. [**Very Important Paper status**]
32. Baykov S.V., Dabranskaya U., Ivanov D.M., **Novikov A.S.**, Boyarskiy V.P. "Pt/Pd and I/Br isostructural exchange provides formation of C–I•••Pd, C–Br•••Pt, and C–Br•••Pd metal-involving halogen bonding" // *Cryst. Growth Des.* 2018, V. 18. P. 5973.
33. Osipyan A., Sapegin A., **Novikov A.S.**, Krasavin M. "Rare medium-sized rings prepared via hydrolytic imidazoline ring expansion (HIRE)" // *J. Org. Chem.* 2018, V. 83. P. 9707 [**highlighted on cover**]
34. **Novikov A.S.** "Strong metallophilic interactions in nickel coordination compounds" // *Inorg. Chim. Acta* 2018, V. 483. P. 21.

35. Kinzhalov M.A., Kashina M.V., Mikherdov A.S., Mozheeva E.A., **Novikov A.S.**, Smirnov A.S., Ivanov D.M., Kryukova M.A., Ivanov A.Yu., Smirnov S.N., Kukushkin V.Yu., Luzyanin K.V. “Dramatically enhanced solubility of halide-containing organometallic species in diiodomethane: the role of solvent•••complex halogen bonding” // *Angew. Chem. Int. Ed.* 2018, V. 57. P. 12785.

36. Kinzhalov M.A., **Novikov A.S.**, Khoroshilova O.V., Bokach N.A. “The structure of 2-methylphenylcyanamide in the solid state” // *J. Struct. Chem.* 2018, V. 59, P. 1302.

37. Burianova V.K., Bolotin D.S., **Novikov A.S.**, Kolesnikov I.E., Suslonov V.V., Zhdanov A.P., Zhizhin K.Yu., Kuznetsov N.T. “Nucleophilic addition of hydrazine and benzophenone hydrazone to 2-acetonitrilium *closo*-decaborate cluster: structural and photophysical study” // *Inorg. Chim. Acta* 2018, V. 482. P. 838.

38. Adonin S.A., Udalova L.I., Abramov P.A., **Novikov A.S.**, Yushina I.V., Korolkov I.V., Semitut E.Yu., Derzhavskaya T.A., Stevenson K.J., Troshin P.A., Sokolov M.N., Fedin V.P. “A novel family of polyiodo-bromoantimonate(III) complexes: cation-driven self-assembly of photoconductive metal-polyhalide frameworks” // *Chem. Eur. J.* 2018, V. 24. P. 14707.

39. Burianova V.K., Mikherdov A.S., Bolotin D.S., **Novikov A.S.**, Mokolokolo P.P., Roodt A., Boyarskiy V.P., Suslonov V.V., Zhdanov A.P., Zhizhin K.Yu., Kuznetsov N.T. “Electrophilicity of aliphatic nitrilium closo-decaborate clusters: Hyperconjugation provides an unexpected inverse reactivity order” // *J. Organomet. Chem.* 2018, V. 870. P. 97.

40. Usoltsev A.N., Adonin S.A., Abramov P.A., **Novikov A.S.**, Shayapov V.R., Plyusnin P.E., Korolkov I.V., Sokolov M.N., Fedin V.P. “1D and 2D polybromotellurates (IV): structural studies and thermal stability” // *Eur. J. Inorg. Chem.* 2018, V. 2018. P. 3264.

41. Rozhkov A.V., **Novikov A.S.**, Ivanov D.M., Bolotin D.S., Bokach N.A., Kukushkin V.Yu. “Structure-directing weak interactions with 1,4-diiodotetrafluorobenzene convert 1D-arrays of $[M^{II}(acac)_2]$ species into 3D-networks” // *Cryst. Growth Des.* 2018, V. 18. P. 3626.

42. Mikherdov A.S., Kinzhalov M.A., **Novikov A.S.**, Boyarskiy V.P., Boyarskaya I.A., Avdontceva M.S., Kukushkin V.Yu. “Ligation-enhanced π-hole•••π interactions involving isocyanides. Effect of π-hole•••π non-covalent bonding on conformational stabilization of acyclic diaminocarbene ligands” // *Inorg. Chem.* 2018, V. 57. P. 6722.

43. Dmitriev V.A., Efremova M.M., **Novikov A.S.**, Zarubaev V.V., Slita A.V., Galochkina A.V., Starova G.L., Ivanov A.V., Molchanov A.P. “Highly efficient and stereoselective cycloaddition of nitrones to indolyl- and pyrrolylacrylates” // *Tetrahedron Lett.* 2018, V. 59. P. 2327.

44. Adonin S.A., Bondarenko M.A., Abramov P.A., **Novikov A.S.**, Plyusnin P.E., Sokolov M.N., Fedin V.P. “Bromo- and polybromoantimonates (V): structural and theoretical studies of hybrid halogen-rich halometalate frameworks” // *Chem. Eur. J.* 2018, V. 24. P. 10165.

45. Kinzhalov M.A., Katkova S.A., Doronina E.P., **Novikov A.S.**, Eliseev I.I., Ilichev V.A., Kukinov A.A., Starova G.L., Bokach N.A. “Red photo- and electroluminescent half-lantern cyclometalated dinuclear platinum(II) complex” // *Z. Kristallogr. Cryst. Mater.* 2018, V. 233. P. 795.

46. Burianova V.K., Bolotin D.S., Mikherdov A.S., **Novikov A.S.**, Mokolokolo P.P., Roodt A., Boyarskiy V.P., Dar'in D., Krasavin M., Suslonov V.V., Zhdanov A.P., Zhizhin K.Yu., Kuznetsov N.T. “Mechanism of generation of *closo*-decaborato amidrazones.

Intramolecular non-covalent B–H•••π(Ph) interaction determines stabilization of the configuration around the amidrazone C=N bond" // *New J. Chem.* 2018, V. 42. P. 8693.

47. **Novikov A.S.** "Theoretical studies of cycloaddition to metal-activated substrates with isocyanide ligands" // *Russ. J. Coord. Chem.* 2018, V. 44. P. 252.
48. Mikherdov A.S., **Novikov A.S.**, Kinzhalov M.A., Zolotarev A.A., Boyarskiy V.P. "Intra-/intermolecular bifurcated chalcogen bonding in crystal structure of thiazole/thiadiazole derived binuclear (diaminocarbene)Pd^{II} complexes" // *Crystals* 2018, V. 8. P. 112.
49. **Novikov A.S.**, Bolotin D.S. "Tautomerism of amidoximes and other oxime species" // *J. Phys. Org. Chem.* 2018, V. 31. P. e3772.
50. Mikherdov A.S., **Novikov A.S.**, Kinzhalov M.A., Boyarskiy V.P., Starova G.L., Ivanov A.Yu., Kukushkin V.Yu. "Halides held by bifurcated chalcogen–hydrogen bonds. Effect of $\mu_{(S,N-H)}$Cl contacts on dimerization of Cl(Carbene)Pd^{II} species" // *Inorg. Chem.* 2018, V. 57. P. 3420.
51. Adonin S.A., Gorokh I.D., **Novikov A.S.**, Samsonenko D.G., Plyusnin P.E., Sokolov M.N., Fedin V.P. "Bromine-rich complexes of bismuth: experimental and theoretical studies" // *Dalton Trans.* 2018, V. 47. P. 2683.
52. Bulatova M., Melekhova A.A., **Novikov A.S.**, Ivanov D.M., Bokach N.A. "Redox reactive (RNC)Cu^{II} species stabilized in the solid state via halogen bond with I_2" // *Z. Kristallogr. Cryst. Mater.* 2018, V. 233. P. 371.
53. **Novikov A.S.** "Theoretical confirmation of existence of X•••Au non-covalent contacts" // *Inorg. Chim. Acta* 2018, V. 471. P. 126.
54. Efremova M.M., **Novikov A.S.**, Kostikov R.R., Panikorovsky T.L., Ivanov A.V., Molchanov A.P. "Regio- and diastereoselectivity of the cycloaddition of nitrones with N-propadienylindole and pyrroles" // *Tetrahedron* 2018, V. 74. P. 174.
55. Adonin S.A., Gorokh I.D., **Novikov A.S.**, Samsonenko D.G., Korolkov I.V., Sokolov M.N., Fedin V.P. "Bromobismuthates: cation-induced structural diversity and Hirshfeld surface analysis of cation-anion contacts" // *Polyhedron* 2018, V. 139. P. 282.
56. Adonin S.A., Gorokh I.D., Abramov P.A., **Novikov A.S.**, Korolkov I.V., Sokolov M.N., Fedin V.P. "Chlorobismuthates trapping dibromine: formation of two-dimensional supramolecular polyhalide networks with Br_2 linkers" // *Eur. J. Inorg. Chem.* 2017, V. 2017. P. 4925.
57. Melekhova A.A., **Novikov A.S.**, Panikorovskii T.L., Bokach N.A., Kukushkin V.Yu. "Novel family of homoleptic copper(I) complexes featuring disubstituted cyanamides: combined synthetic, structural, and theoretical study" // *New J. Chem.* 2017, V. 41. P. 14557.
58. Bikbaeva Z.M., Ivanov D.M., **Novikov A.S.**, Ananyev I.V., Bokach N.A., Kukushkin V.Yu. "Electrophilic–nucleophilic dualism of nickel(II) toward Ni•••I non-covalent interactions: semicoordination of iodine centers via electron belt and halogen bonding via σ-Hole" // *Inorg. Chem.* 2017, V. 56. P. 13562.
59. Bolotin D.S., Bikbaeva Z.M., **Novikov A.S.**, Suslonov V.V., Bokach N.A. "A dimetallic aminonitrone nickel(II) complex: further insights into metal-mediated nucleophilic activation of amidoximes" // *ChemistrySelect* 2017, V. 2. P. 9674.
60. Katkova S.A., Kinzhalov M.A., Tolstoy P.M., **Novikov A.S.**, Boyarskiy V.P., Ananyan A.Yu., Gushchin P.V., Haukka M., Zolotarev A.A., Ivanov A.Yu., Zlotsky S.S., Kukushkin V.Yu. "Diversity of isomerization patterns and protolytic forms in

aminocarbene Pd^{II} and Pt^{II} complexes formed upon addition of N,N'-diphenylguanidine to metal-activated isocyanides" // *Organometallics* 2017, V. 36. P. 4145.

61. Kinzhalov M.A., Legkodukh A.S., Anisimova T.B., **Novikov A.S.**, Suslonov V.V., Luzyanin K.V., Kukushkin V.Yu. "Tetrazol-5-ylidene gold(III) complexes from sequential [2 + 3] cycloaddition of azide to metal-bound isocyanides and N4-alkylation" // *Organometallics* 2017, V. 36. P. 3974.

62. Adonin S.A., Gorokh I.D., **Novikov A.S.**, Abramov P.A., Sokolov M.N., Fedin V.P. "Halogen contacts-induced unusual coloring in Bi(III) bromide complex: anion-to-cation charge transfer via Br•••Br interactions" // *Chem. Eur. J.* 2017, V. 23. P. 15612.

63. Usoltsev A.N., Adonin S.A., **Novikov A.S.**, Samsonenko D.G., Sokolov M.N., Fedin V.P. "One-dimensional polymeric polybromotellurates (IV): structural and theoretical insights into halogen···halogen contacts" // *CrystEngComm* 2017, V. 19. P. 5940.

64. Il'in M.V., Bolotin D.S., **Novikov A.S.**, Suslonov V.V., Chezhina N.V., Bubnov M.P., Cherkasov V.K., Venter G.J.S., Roodt A. "Square-planar aminonitronate transition metal complexes (M = Cu^{II}, Ni^{II}, Pd^{II}, and Pt^{II})" // *Inorg. Chim. Acta* 2017, V. 467. P. 372.

65. Bikbaeva Z.M., **Novikov A.S.**, Suslonov V.V., Bokach N.A., Kukushkin V.Yu. "Metal-mediated reactions between dialkylcyanamides and acetamidoxime generate unusual (nitrosoguanidinate)nickel(II) complexes" // *Dalton Trans.* 2017, V. 46. P. 10090.

66. Kinzhalov M.A., Eremina A.A., Ivanov D.M., **Novikov A.S.**, Katlenok E.A., Balashev K.P., Suslonov V.V. "Halogen and chalcogen bonding in dichloromethane solvate of cyclometalated iridium(III)-isocyanide complex" // *Z. Kristallogr. Cryst. Mater.* 2017, V. 232. P. 797.

67. Sirotkina E.V., Efremova M.M., **Novikov A.S.**, Zarubaev V.V., Orshanskaya I.R., Starova G.L., Kostikov R.R., Molchanov A.P. "Regio- and diastereoselectivity of the cycloaddition of aldonitrones with benzylidenecyclopropane: An experimental and theoretical study" // *Tetrahedron* 2017, V. 73. P. 3025.

68. Anisimova T.B., Kinzhalov M.A., Guedes da Silva M.F.C., **Novikov A.S.**, Kukushkin V.Yu., Pombeiro A.J.L., Luzyanin K.V. "Addition of N-nucleophiles to gold(III)-bound isocyanides leading to short-lived gold(III) acyclic diaminocarbene complexes" // *New J. Chem.* 2017, V. 41. P. 3246.

69. **Novikov A.S.**, Ivanov D.M., Avdontceva M.S., Kukushkin V.Yu. "Diiodomethane as halogen bond donor toward metal-bound halides" // *CrystEngComm* 2017, V. 19. P. 2517.

70. Melekhova A.A., Smirnov A.S., **Novikov A.S.**, Panikorovskii T.L., Bokach N.A., Kukushkin V.Yu. "Copper(I)-catalyzed 1,3-dipolar cycloaddition of ketonitrones to dialkylcyanamides. A step toward sustainable generation of 2,3-dihydro-1,2,4-oxadiazoles" // *ACS Omega* 2017, V. 2. P. 1380.

71. Melekhova A.A., **Novikov A.S.**, Rostovskii N.V., Sakharov P.A., Panikorovskii T.L., Bokach N.A. "Open-chain hemiketal is stabilized by coordination to a copper(II)" // *Inorg. Chem. Commun.* 2017, V. 79. P. 82.

72. Ivanov D.M., Kinzhalov M.A., **Novikov A.S.**, Ananyev I.V., Romanova A.A., Boyarskiy V.P., Haukka M., Kukushkin V.Yu. "The $H_2C(X)–X•••X^-$ (X = Cl, Br) halogen bonding of dihalomethanes" // *Cryst. Growth Des.* 2017, V. 17. P. 1353.

73. Bolotin D.S., Il'in M.V., **Novikov A.S.**, Bokach N.A., Suslonov V.V., Kukushkin V.Yu. "Trinuclear (aminonitrone)Zn^{II} complexes as key intermediates in zinc(II)-mediated generation of 1,2,4-Oxadiazoles from amidoximes and nitriles" // *New J. Chem.* 2017, V. 41. P. 1940.

74. Kinzhalov M.A., **Novikov A.S.**, Chernyshev A.N., Suslonov V.V. “Intermolecular hydrogen bonding H···Cl⁻ in the solid palladium(II)-diaminocarbene complexes” // *Z. Kristallogr. Cryst. Mater.* 2017, V. 232. P. 299.

75. Andrusenko E.V., Kabin E.V., **Novikov A.S.**, Bokach N.A., Starova G.L., Kukushkin V.Yu. “Metal-mediated generation of triazapentadienate-terminated di- and trinuclear μ_2-pyrazolate Ni^{II} species and control of their nuclearity” // *New J. Chem.* 2017, V. 41. P. 316.

76. Mikherdov A.S., Kinzhalov M.A., **Novikov A.S.**, Boyarskiy V.P., Boyarskaya I.A., Dar'in D.V., Starova G.L., Kukushkin V.Yu. “Difference in energy between two distinct types of chalcogen bonds drives regioisomerization of binuclear (diaminocarbene)Pd^{II} complexes” // *J. Am. Chem. Soc.* 2016, V. 138. P. 14129.

77. Bolotin D.S., Burianova V.K., **Novikov A.S.**, Demakova M.Ya., Pretorius C., Mokolokolo P.P., Roodt A., Bokach N.A., Suslonov V.V., Zhdanov A.P., Zhizhin K.Yu., Kuznetsov N.T., Kukushkin V.Yu. “Nucleophilicity of oximes based upon addition to a nitrilium closo-decaborate cluster” // *Organometallics* 2016, V. 35. P. 3612.

78. Kolari K., Sahamies J., Kalenius E., **Novikov A.S.**, Kukushkin V.Yu., Haukka M. “Metallophilic interactions in polymeric group 11 thiols” // *Solid State Sci.* 2016, V. 60. P. 92.

79. Ivanov D.M., **Novikov A.S.**, Starova G.L., Haukka M., Kukushkin V.Yu. “A family of heterotetrameric clusters of chloride species and halomethanes held by two halogen and two hydrogen bonds” // *CrystEngComm* 2016, V. 18. P. 5278. [**highlighted on cover**]

80. Afanasenko A.M., Avdontceva M.S., **Novikov A.S.**, Chulkova T.G. “Halogen and hydrogen bonding in *cis*-dichlorobis(propionitrile)platinum(II) chloroform monosolvate” // *Z. Kristallogr. Cryst. Mater.* 2016, V. 231. P. 435.

81. Melekhova A.A., **Novikov A.S.**, Bokach N.A., Avdonceva M.S., Kukushkin V.Yu. “Characterization of Cu-ligand bonds in tris-pyrazolylmethane isocyanide copper(I) complexes based upon combined X-ray diffraction and theoretical study” // *Inorg. Chim. Acta* 2016, V. 450. P. 140.

82. Mikhaylov V.N., Sorokoumov V.N., Korvinson K.A., **Novikov A.S.**, Balova I.A. “Synthesis and simple immobilization of palladium(II) acyclic diaminocarbene complexes on polystyrene-support as efficient catalysts for Sonogashira and Suzuki-Miyaura cross-coupling” // *Organometallics* 2016, V. 35. P. 1684.

83. Serebryanskaya T.V., **Novikov A.S.**, Gushchin P.V., Haukka M., Asfin R.E., Tolstoy P.M., Kukushkin V.Yu. “Identification and H(D)-bond energies of C–H(D)···Cl interactions in chloride–haloalkane clusters: combined X-ray crystallographic, spectroscopic, and theoretical study” // *Phys. Chem. Chem. Phys.* 2016, V. 18. P. 14104.

84. Andrusenko E.V., **Novikov A.S.**, Starova G.L., Bokach N.A. “Three-dimensional hydrogen bonding network in the structures of (dimethylcyanamide)cobalt(II) complexes” // *Inorg. Chim. Acta* 2016, V. 447. P. 142.

85. Ivanov D.M., **Novikov A.S.**, Ananyev I.V., Kirina Y.V., Kukushkin V.Yu. “Halogen bonding between metal centers and halocarbons” // *Chem. Commun.* 2016, V. 52. P. 5565.

86. Bolotin D.S., **Novikov A.S.**, Kolesnikov I.E., Suslonov V.V., Novozhilov Y., Ronzhina O., Dorogov M., Krasavin M., Kukushkin V.Yu. “Phosphorescent platinum(II) complexes featuring chelated acetoxime pyrazoles: synthetic, structural, and photophysical study” // *ChemistrySelect* 2016, V. 3. P. 456.

87. Ding X., Tuikka M.J., Hirva P., Kukushkin V.Yu., **Novikov A.S.**, Haukka M. “Fine-tuning halogen bonding properties of diiodine through halogen-halogen charge transfer – Extended [Ru(2,2’-bipyridine)$(CO)_2X_2$]•I_2 systems (X= Cl, Br, I)” // *CrystEngComm* 2016, V. 18. P. 1987.

88. **Novikov A.S.**, Kuznetsov M.L., Rocha B.G.M., Pombeiro A.J.L., Shul’pin G.B. “Oxidation of olefins with H_2O_2 catalysed by salts of Group III metals (Ga, In, Sc, Y and La): epoxidation versus hydroperoxidation” // *RSC Catal. Sci. Tech.* 2016, V. 6. P. 1343.

89. Kulish K.I., **Novikov A.S.**, Tolstoy P.M., Bolotin D.S., Bokach N.A., Zolotarev A.A., Kukushkin V.Yu. “Solid state and dynamic solution structures of O-carbamidine amidoximes gives further insight into the mechanism of zinc(II)-mediated generation of 1,2,4-oxadiazoles” // *J. Mol. Struct.* 2016, V. 1111. P. 142.

90. Ivanov D.M., Gushchin P.V., **Novikov A.S.**, Avdontceva M.S., Zolotarev A.A., Starova G.L., Chen Y.-T., Liu S.-H., Chou P.-T., Kukushkin V.Yu. “Platinum(II)-mediated double coupling of 2,3-diphenylmaleimidine with nitrile functionalities giving annulated triazapentadiene PANT systems” // *Eur. J. Inorg. Chem.* 2016, V. 2016. P. 1480. [**highlighted on cover**]

91. Kinzhalov M.A., **Novikov A.S.**, Luzyanin K.V., Haukka M., Pombeiro A.J.L., Kukushkin V.Yu. “Pd^{II}-mediated integration of isocyanides and azide ion might proceed via formal 1,3-dipolar cycloaddition between RNCs ligands and uncomplexed azide” // *New J. Chem.* 2016, V. 40. P. 521.

92. Ivanov D.M., Kirina Y.V., **Novikov A.S.**, Starova G.L., Kukushkin V.Yu. “Efficient π-stacking with benzene provides 2D assembly of *trans*-[$PtCl_2$(*p*-$CF_3C_6H_4CN)_2$]” // *J. Mol. Struct.* 2016, V. 1104. P. 19.

93. Andrusenko E.V., Kabin E.V., **Novikov A.S.**, Bokach N.A., Starova G.L., Zolotarev A.A., Kukushkin V.Yu. “Highly reactive Ni^{II}-bound nitrile–oxime coupling intermediate stabilized by substituting conventional nitriles with a dialkylcyanamide” // *Eur. J. Inorg. Chem.* 2015, V. 2015. P. 4894.

94. **Novikov A.S.** “1,3-Dipolar cycloaddition of nitrones to transition metal-bound isocyanides: DFT and HSAB principle theoretical model together with analysis of vibrational spectra” // *J. Organomet. Chem.* 2015, V. 797. P. 8.

95. Melekhova A.A., **Novikov A.S.**, Luzyanin K.V., Bokach N.A., Starova G.L., Gurzhiy V.V., Kukushkin V.Yu. “Tris-Isocyanide copper(I) complexes: synthetic, structural, and theoretical study” // *Inorg. Chim. Acta* 2015. V. 434. P. 31.

96. Bolotin D.S., Demakova M.Ya., **Novikov A.S.**, Avdontceva M.S., Kuznetsov M.L., Bokach N.A., Kukushkin V.Yu. “Bifunctional reactivity of amidoximes observed upon nucleophilic addition to metal-activated nitriles” // *Inorg. Chem.* 2015. V. 54. P. 4039.

97. Serebryanskaya T.V., **Novikov A.S.**, Gushchin P.V., Zolotarev A.A., Gurzhiy V.V., Kukushkin V.Yu. “Coupling of platinated triguanides with platinum-activated nitriles as a novel strategy for generation of dimetallic systems” // *Dalton Trans.* 2015. V. 44. P. 6003.

98. **Novikov A.S.**, Kuznetsov M.L., Pombeiro A.J.L., Bokach N.A., Shul’pin G.B. “Generation of $HO^{\bullet}$ radical from hydrogen peroxide catalyzed by aqua-complexes of the group III metals $[M(H_2O)_n]^{3+}$ (M = Ga, In, Sc, Y, La): a theoretical study” // *ACS Catal.* 2013. V. 3. P. 1195.

99. **Novikov A.S.**, Kuznetsov M.L., Pombeiro A.J.L. “Theory of the formation and decomposition of N-heterocyclic aminooxycarbenes through metal-assisted [2+3]-dipolar cycloaddition/retro-cycloaddition” // *Chem. Eur. J.* 2013. V. 19. P. 2874.

100. **Novikov A.S.**, Dement`ev A.I., Medvedev Yu.N. “Theoretical study of the reactivity of Rh(I) and Rh(III) bis(isonitrile) complexes in cycloaddition reactions with nitrones” // *Russ. J. Inorg. Chem.* 2013. V. 58. P. 320.

101. **Novikov A.S.**, Dement`ev A.I., Medvedev Yu.N. “Theoretical study of Rh(I) and Rh(III) bis(isonitrile) complexes as promising reagents for synthesis of N-heterocyclic carbenes” // *Russ. J. Inorg. Chem.* 2012. V. 57. P. 1576.

102. **Novikov A.S.**, Kuznetsov M.L. “Theoretical study of Re(IV) and Ru(II) bis-isocyanide complexes and their reactivity in cycloaddition reactions with nitrones” // *Inorg. Chim. Acta* 2012. V. 380. P. 78.

Other Activities

Expert of the *Russian Science Foundation* in fields of Quantum Chemistry, Computer Modeling, and Supramolecular Chemistry

Reviewer for *Langmuir* (American Chemical Society), *CrystEngComm* (Royal Society of Chemistry), *Molecules* (MDPI), *Crystals* (MDPI), *International Journal of Molecular Sciences* (MDPI), *Chemosensors* (MDPI), *Symmetry* (MDPI), *Zeitschrift für Kristallographie – Crystalline Materials* (De Gruyter), *Current Organic Chemistry* (Bentham Science), *International Journal of Hydrogen Energy* (Elsevier), *Inorganica Chimica Acta* (Elsevier), *Materials Chemistry and Physics* (Elsevier), *Chemical Physics Letters* (Elsevier), *Journal of Molecular Structure* (Elsevier), *Journal of Molecular Graphics and Modelling* (Elsevier), *Arabian Journal of Chemistry* (Elsevier), *Carbohydrate Research* (Elsevier), *Structural Chemistry* (Springer), *Chemical Papers* (Springer), *Research on Chemical Intermediates* (Springer), *Reaction Kinetics, Mechanisms and Catalysis* (Springer), *Journal of Molecular Modeling* (Springer)

11th International Conference on Chemistry for Young Scientists “Mendeleev 2019” (Saint Petersburg, Russia, 09–13 September 2019) – *Scientific secretary of the conference, Chairman of section "Computer modeling and cheminformatics", Plenary speaker*

The Russian Cluster of Conferences on Inorganic Chemistry “InorgChem 2018” (Astrakhan, Russia, 17–21 September 2018) – *Member of the program and organization committees (8th International Russian Science Foundation Symposium on Organometallic Chemistry Incorporating Elements of School-Conference)*

Visit of teacher and student delegation from the University of Jyväskylä (Jyväskylä, Finland) at the Saint Petersburg State University (Saint Petersburg, Russia) within the framework of Finnish–Russian student and teacher international exchange mobility program FIRST+ (17–24 March 2018) – *Principal curator, Plenary lecturer*

27th International Chugaev Conference on Coordination Chemistry (Nizhny Novgorod, Russia, 02–06 October 2017) – *Chairman of section 9 (7th Russian Science Foundation Symposium on Organometallic Chemistry Incorporating Elements of School-Conference), Member of the organization committee*

10th International Chemistry Conference for Young Scientists "Mendeleev 2017" (Saint Petersburg, Russia, 04–07 April 2017) – *Chairman of section "Computer modeling", Member of the organization committee*

Cluster of Conferences "OrgChem-2016" (Saint Petersburg / Repino, Russia, 27 June–02 July 2016) – *Member of the organization committee (6th International Russian Science Foundation Symposium on Organometallic Chemistry Incorporating Elements of School-Conference)*

9th International Chemistry Conference for Young Scientists "Mendeleev 2015" (Saint Petersburg, Russia, 07–10 April 2015) – *Chairman of section "Quantum chemistry and computer modeling", Member of the program and organization committees*

Training

25th Jyväskylä Summer School (Jyväskylä, Finland, 05–21, August 2015)
Attended the courses:

- CH1: Ion Mobility Mass Spectrometry
- CH2: Biomolecular NMR-spectroscopy
- CH4: Optical Molecular Spectroscopy, from Gas Phase to Condensed Phase, from Static Spectra to Dynamics

Awards

One of the best presentations at the *International Workshop on Chemical Crystallography and Structural Biology "The Second Struchkov Meeting"*, Moscow, Russia, 13–16 November 2018.

Yu. T. Struchkov Prize for young scientists from the Former Soviet Union for the best research works in the field of X-ray crystallography (2017)

Academia Europaea Award (Academy of Europe) for young Russian scientists in Chemistry field (2016)

Grant for young scientists from the Government of Saint Petersburg (2016)

Fellowships of Saint Petersburg State University and Santander Bank (visits to Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal; September–October 2016 and August–September 2017)

Diploma for the best poster presentation at the *IV All-Russian Conference on Organic Chemistry and XVIII Youth School-Conference on Organic Chemistry*, Moscow, Russia, 22–27 November 2015

Diploma for the best poster presentation at the *International Youth Scientific Forum "Lomonosov-2015"*, Moscow, Russia, 13–17 April 2015

Diploma for active participation in the discussions at the *VI All-Russian Youth School-Conference "Quantum Chemical Calculations: The Structure and Reactivity of Organic and Inorganic Molecules"*, Ivanovo, Russia, 30 September–4 October 2013

Diploma for the best work at the *International Youth Scientific Forum "Lomonosov-2013"*, Moscow, Russia, 08–13 April 2013

2009/2010 academic years – the ***Special State Stipend*** from the Government of Russian Federation for talented students

The paper by Alexander S. Novikov and colleagues “Reverse arene sandwich structures based upon π-hole•••[M^{II}](d^8M = Pt, Pd) interactions, where positively charged metal centers play the role of a nucleophile” was recognized by the editorial board of *Angewandte Chemie* as ***one of the most significant articles of the issue and its graphical abstract was placed on the cover*** of 13th issue 2019 (DOI: 10.1002/anie.201814062).

The paper by Alexander S. Novikov and colleagues “Re-thinking hydrolytic imidazoline ring expansion: a common approach to the preparation of medium-sized rings via side chain insertion into [1.4]oxa- and [1.4]thiazepinone scaffold” was recognized by the editorial board of *The Journal of Organic Chemistry* as ***one of the most significant articles of the issue and its graphical abstract was placed on the cover*** of 4th issue 2019 (DOI:10.1021/acs.joc.8b02805).

The paper by Alexander S. Novikov and colleagues “2,2′-Azobispyridine in phosphorus coordination chemistry: a new approach to 1,2,4,3-triazaphosphole derivatives” was recognized by the editorial board of *European Journal of Inorganic Chemistry* as ***VIP (Very Important Paper) based on referees' suggestions*** (DOI: 10.1002/ejic.201800831).

The paper by Alexander S. Novikov and colleagues “Rare medium-sized rings prepared via hydrolytic imidazoline ring expansion (HIRE)” was recognized by the editorial board of *The Journal of Organic Chemistry* as ***one of the most significant articles of the issue and its graphical abstract was placed on the cover*** of 17th issue 2018 (DOI:10.1021/acs.joc.8b01210).

The paper by Alexander S. Novikov and colleagues “Platinum(II)-mediated double coupling of 2,3-diphenylmaleimidine with nitrile functionalities giving annulated triazapentadiene PANT systems” was recognized by the editorial board of *European Journal of Inorganic Chemistry* as ***one of the most significant articles of the issue and its graphical abstract was placed on the cover*** of 10th issue 2016 (DOI: 10.1002/ejic.201501398).

The paper by Alexander S. Novikov and colleagues “A family of heterotetrameric clusters of chloride species and halomethanes held by two halogen and two hydrogen bonds” was recognized by the editorial board of *CrystEngComm* as ***one of the most significant articles of the issue and its graphical abstract was placed on the cover*** of 28th issue 2016 (DOI: 10.1039/c6ce01179a).

Referees

Vadim Yu. Kukushkin
Institute of Chemistry, Saint Petersburg State University, Saint Petersburg, Russia
E-mail: v.kukushkin@spbu.ru
Research group: http://en-chem.spbu.ru/index.php/physical-organic-chemistry
Organization: http://spbu.ru

Armando J. L. Pombeiro
Centro de Química Estrutural, Instituto Superior Técnico, University of Lisbon, Lisbon, Portugal
E-mail: pombeiro@tecnico.ulisboa.pt
Research group: https://cqe.tecnico.ulisboa.pt/CCC
Organization: https://www.ulisboa.pt

Matti Haukka
Department of Chemistry, University of Jyväskylä, Jyväskylä, Finland
E-mail: matti.o.haukka@jyu.fi
Research group: https://www.jyu.fi/kemia/en/research/ems
Organization: https://www.jyu.fi

Kersti Hermansson
Department of Chemistry, Uppsala University, Uppsala, Sweden
E-mail: kersti.hermansson@kemi.uu.se
Research group: http://www.teoroo.kemi.uu.se
Organization: http://www.uu.se

André H. Juffer
Biocenter Oulu and Faculty of Biochemistry and Molecular Medicine, University of Oulu, Oulu, Finland
E-mail: andre.juffer@oulu.fi
Research group: https://www.oulu.fi/biocenter/groups/juffer
Organizations: https://www.oulu.fi/biocenter/ and https://www.oulu.fi/university/