

1. V. Yu. Kukushkin, A. J. L. Pombeiro, Metal-mediated and metal-catalyzed hydrolysis of nitriles (a review), *Inorg. Chim. Acta*, **358** (2005) 1–21.
2. N. A. Bokach, V. Yu. Kukushkin, Addition of HO-nucleophiles to free and coordinated nitriles, *Russ. Chem. Rev.*, **74** (2005) 164–182.
3. N. A. Bokach, V. Yu. Kukushkin, M. Haukka, A. J. L. Pombeiro, Synthesis of (1,2,4-oxadiazole)Pd(II) complexes via [2 + 3] cycloaddition of nitrile oxides to organonitriles in the presence of PdCl<sub>2</sub>, *Eur. J. Inorg. Chem.*, 2005, 845–853.
4. N. A. Bokach, V. Yu. Kukushkin, P. F. Kelly, M. Haukka, A. J. L. Pombeiro, The first examples of metal-mediated addition of a phosphorus imine to nitriles; the preparation and X-ray crystal structures of [PtCl<sub>4</sub>{NH=C(Et)N=PPh<sub>3</sub>}<sub>2</sub>] and [PtCl<sub>2</sub>(EtCN){NH=C(Et)N=PPh<sub>3</sub>}], *Dalton Trans.*, 2005, 1354–1356.
5. K. V. Luzyanin, V. Yu. Kukushkin, A. D. Ryabov, M. Haukka, A. J. L. Pombeiro, Kinetic and mechanistic study of the Pt(II) versus Pt(IV) effect in the platinum-mediated nitrile–hydroxylamine coupling, *Inorg. Chem.*, **44** (2005) 2944–2953.
6. A. V. Khripun, M. Haukka, D. N. Nikolaeva, V. Yu. Kukushkin, *fac*-Trichloro(pyrazolato)bis(pyrazole)platinum(IV), *Acta Crystallogr., Sect. E*, **61** (2005) m2069–m2071.
7. A. V. Makarycheva-Mikhailova, E. A. Tronova, V. Yu. Kukushkin, Synthesis of amidine complexes by metal-mediated addition of amino acid esters to coordinated nitriles, *Russ. Chem. Bull. (A Special Issue Dedicated to V. I. Minkin)*, 2005, 601–605.
8. N. A. Bokach, T. V. Kuznetsova, S. A. Simanova, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Nitrile–amidine coupling at Pt(IV) and Pt(II) centers. An easy entry to imidoamidine complexes, *Inorg. Chem.*, **44** (2005) 5152–5160.
9. K. V. Luzyanin, M. Haukka, Yu. A. Izotova, V. Yu. Kukushkin, A. J. L. Pombeiro, *trans*-Tetrachlorobis(*E*)-ethyl 2-(1-iminoproxyimino)propanoate)platinum(IV), *Acta Crystallogr., Sect. E*, **61** (2005) m1765–m1767.
10. N. A. Bokach, A. V. Krokhin, A. A. Nazarov, V. Yu. Kukushkin, M. Haukka, J. J. R. Fraústo da Silva, A. J. L. Pombeiro, Interplay between nitrones and (nitrile)Pd(II) complexes: cycloaddition versus complexation followed by cyclopalladation and deoxygenation reactions, *Eur. J. Inorg. Chem.*, 2005, 3042–3048.
11. D. A. Garnovskii, N. A. Bokach, A. J. L. Pombeiro, M. Haukka, J. J. R. Fraústo da Silva, V. Yu. Kukushkin, Microwave-assisted and Pd(II)-mediated nitrile–oxime coupling, *Eur. J. Inorg. Chem.*, 2005, 3467–3471.
12. V. R. Galeeva, V. Yu. Kukushkin, Celebration of Inorganic Lives: Interview with I. I. Moiseev, *Coord. Chem. Rev.*, **249** (2005) 883–894.

1. M. L. Kuznetsov, V. Yu. Kukushkin, Theoretical study of reactant activation in 1,3-dipolar cycloadditions of cyclic nitrones to free and Pt-bound nitriles, *J. Org. Chem.*, **71** (2006) 582–592.
2. A. V. Khripoun, S. I. Selivanov, V. Yu. Kukushkin, M. Haukka, Hydrogen bonding patterns in pyrazole Pt(II- and IV) chloride complexes, *Inorg. Chim. Acta*, **359** (2006) 320–326.
3. D. A. Garnovskii, V. Yu. Kukushkin, Metal-mediated reactions of oximes, *Russ. Chem. Rev.*, **75** (2006) 125–140.
4. K. V. Luzyanin, V. Yu. Kukushkin, M. L. Kuznetsov, A. D. Ryabov, M. Galanski, M. Haukka, E. V. Tretyakov, V. I. Ovcharenko, M. N. Kopylovich, A. J. L. Pombeiro, Kinetic and thermodynamic aspects of the regioselective addition of bifunctional hydroxylaminooxime-type HO-nucleophiles to Pt-complexed nitriles, *Inorg. Chem.*, **45** (2006) 2296–2306.
5. N. A. Bokach, M. Haukka, P. Hirva, M. F. C. Guedes da Silva, V. Yu. Kukushkin, A. J. L. Pombeiro, Photoinduced synthesis and electrochemical properties of new ruthenium(mono)bipyridine dialkylcyanamide and propionitrile complexes, *J. Organomet. Chem.*, **691** (2006) 2368–2377.
6. N. A. Bokach, V. Yu. Kukushkin, M. Haukka, T. B. Mikhailova, A. A. Sidorov, I. L. Eremenko, Co(II)-Mediated and microwave assisted coupling between 2,6-diaminopyridine and nitriles. A new synthetic route to *N*-(6-aminopyridin-2-yl)carboximidamides, *Russ. Chem. Bull. Int. Ed.*, 2006, 36–43.
7. А. В. Хрипун, М. Хаукка, В. Ю. Кукушкин, Направленный синтез изомерно чистых пиразольных комплексов платины(II и IV), *Изв. АН, сер. химич.*, 2006, 242–249.
8. A. V. Khripun, V. Yu. Kukushkin, S. I. Selivanov, M. Haukka, A. J. L. Pombeiro, Unusual reaction between (nitrile)Pt complexes and pyrazoles: substitution proceeds via metal-mediated nitrile–pyrazole coupling followed by elimination of the nitrile, *Inorg. Chem.*, **45** (2006) 5073–5083.
9. P. V. Gushchin, N. A. Bokach, M. Haukka, E. S. Dmitrieva, V. Yu. Kukushkin, *trans*-Dichlorobis(piperidine-1-carbonitrile)platinum(II), *Acta Crystallogr., Sect. E*, **62** (2006) m244–m246.
10. K. V. Luzyanin, M. Haukka, Yu. A. Izotova, A. J. L. Pombeiro, V. Yu. Kukushkin, Triphenylbenzylphosphonium trichloro(propiononitrile)platinum(II), *Acta Crystallogr., Sect. E*, **62** (2006) m1843–m1844.
11. Yu. Yu. Scaffidi-Domianello, M. Haukka, P. F. Kelly, M. Galanski, B. K. Kelly, V. Yu. Kukushkin, Crystal structure of *trans*-dichloro(dimethyl sulfoxide)(diphenylsulfimide)-platinum(II) toluene hemisolvate,  $\text{PtCl}_2(\text{C}_2\text{H}_6\text{SO})(\text{C}_{12}\text{H}_{10}\text{SNH}) \cdot 1/2\text{C}_7\text{H}_8$ , *Z. Kristallogr. NCS*, **221** (2006) 226–228.

12. K. V. Luzyanin, V. Yu. Kukushkin, M. Haukka, A. J. L. Pombeiro, The first example of Re(IV)-mediated nitrile–hydroxylamine coupling, *Inorg. Chem. Commun.*, **9** (2006) 732–735.
13. A. V. Makarycheva-Mikhailova, P. V. Gushchin, M. N. Kopylovich, I. N. Ganebnykh, V. N. Charushin, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Ni(II)-Mediated nitrosation of oximes bearing an  $\alpha$ -CH<sub>2</sub> group, *Inorg. Chem. Commun.*, **9** (2006) 869–871.
14. G. H. Sarova, N. A. Bokach, A. A. Fedorov, M. N. Berberan-Santos, V. Yu. Kukushkin, M. Haukka, J. J. R. Fraústo da Silva, A. J. L. Pombeiro, A new family of luminescent compounds: platinum(II) imidoamidates exhibiting pH-dependent room temperature luminescence, *Dalton Trans.*, 2006, 3798–3805.
15. M. N. Kopylovich, K. V. Luzyanin, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Bis-[1,1-bis(propan-2-iminoxy)-1*H*-isoindol-3-amine- $\kappa^3$ N,N',N'']nickel(II) dinitrate, *Acta Crystallogr., Sect. E*, **62** (2006) m2846–m2848.
16. Д. А. Гарновский, Е. Д. Гарновская, А. И. Ураев, М. Хаукка, И. Л. Еременко, В. Ю. Кукушкин, Образование гетариламидинов в результате сочетания нитрилов и некоторых аминокетероциклов, промотированное Pt<sup>IV</sup>, *Изв. АН, сер. химич.*, 2006, 1572–1576.
17. Н. А. Бокач, В. Ю. Кукушкин, 1,3-Диполярное циклоприсоединение нитронов к свободным и координированным нитрилам: пути управления процессом синтеза 2,3-дигидро-1,2,4-оксадиазолов (обзор), *Изв. АН, сер. химич.*, 2006, 1803–1815.
18. A. V. Khripun, M. Haukka, V. Yu. Kukushkin, *trans*-Tetrachlorobis[(*E*)-acetone *O*-propanimidoyloxime-*N'*]platinum(IV), *Acta Crystallogr., Sect. E*, **62** (2006) m3404–m3406.

1. A. J. L. Pombeiro, M. N. Kopylovich, A. M. Kirillov, V. Yu. Kukushkin, M. Haukka. Method for the preparation of new unsymmetrical imidoamidine nickel(II) complexes bearing an isoindolinone moiety, compounds thereof and their use as colouring materials. Patent PT 103522 (priority date: 2006/07/12; award date: 2007/03/30).
2. A. J. L. Pombeiro, K. V. Luzyanin, V. Y. Kukushkin, M. N. Kopylovich, Metodo de síntese de 3-iminoisoindolin-1-onas baseado no uso de N,N-dietil-hidroxilamina, Patent PT103718 (priority date 13/04/2007).
3. M. N. Kopylovich, M. Haukka, A. M. Kirillov, V. Yu. Kukushkin, A. J. L. Pombeiro, Unsymmetrical imidoamidine Ni<sup>II</sup> complexes derived from a novel oxime-mediated single-pot reaction of nitriles, *Chem. Eur. J.*, **13** (2007) 786–791.
4. A. V. Khripun, V. Yu. Kukushkin, G. I. Koldobskii, M. Haukka, An extended 1D network formed by complementary hydrogen bonding between Pt<sup>IV</sup>-complexed tetrazoles, *Inorg. Chem. Commun.*, **10** (2007), 250–254.
5. S. Zorbas-Seifried, M. A. Jakupec, N. V. Kukushkin, M. Groessler, C. Hartinger, O. Semenova, H. Zorbas, V. Yu. Kukushkin, B. K. Keppler, Reversion of structure-activity relationships of antitumor platinum complexes by acetoxime but not hydroxylamine ligands, *Molecular Pharmacology*, **71** (2007) 357–365.
6. В. Ю. Кукушкин, Н. А. Бокач, Реакционная способность лигандов, *Ж. общ. химии*, **77** (2007) 216–229; V. Yu. Kukushkin, N. A. Bokach, Reactivity of ligands, *Russ. J. Gen. Chem.*, **77** (2007) 194–205.
7. P. V. Gushchin, N. A. Bokach, K. V. Luzyanin, A. A. Nazarov, M. Haukka, V. Yu. Kukushkin, Pt<sup>II</sup>-mediated nitrile–tetramethylguanidine coupling as a key step for a novel synthesis of 1,6-dihydro-1,3,5-triazines, *Inorg. Chem.*, **46** (2007), 1684–1693.
8. Y. Yu. Scaffidi-Domianello, A. A. Nazarov, M. Haukka, M. Galanski, B. K. Keppler, J. Schneider, P. Du, R. Eisenberg, V. Yu. Kukushkin, First example of the solid state thermal cyclometalation of ligated benzophenone imine giving novel luminescent platinum(II) species, *Inorg. Chem.*, **46** (2007) 4469–4482.
9. M. L. Kuznetsov, A. A. Nazarov, L. V. Kozlova, V. Yu. Kukushkin, Theoretical study of chemo-, regio-, and stereoselectivity in 1,3-dipolar cycloadditions of nitrones and nitrile oxides to free and Pt-bound bifunctional alkenyl- and alkynyl nitriles, *J. Org. Chem.*, **72** (2007) 4475–4485.
10. M. N. Kopylovich, E. A. Tronova, M. Haukka, A. M. Kirillov, V. Yu. Kukushkin, J. J. R. Fraústo da Silva, A. J. L. Pombeiro, Identification of hexameric water and hybrid water-chloride clusters intercalated in the crystal hosts of imidoamidine nickel(II) complexes, *Eur. J. Inorg. Chem.*, 2007, 4621–4627.
11. A. V. Makarycheva-Mikhailova, J. A. Golenetskaya, N. A. Bokach, I. A. Balova, M. Haukka, V. Yu. Kukushkin, Pt<sup>II</sup>-Mediated 1,3-dipolar cycloaddition of oxazoline N-oxides to nitriles as a key step to dihydrooxazolo-1,2,4-oxadiazoles, *Inorg. Chem.*, **46** (2007) 8323–8331.

12. V. Yu. Kukushkin, Celebration of Inorganic Lives: Interview with A. E. Shilov, *Coord. Chem. Rev.*, **251** (2007) 1–11.

1. K. V. Luzyanin, V. Yu. Kukushkin, M. N. Kopylovich, A. A. Nazarov, M. Galanski, M. Haukka, A. J. L. Pombeiro, A novel and expedient route to 3-iminoisoindolin-1-ones via reaction of phthalonitriles with *N,N*-diethylhydroxylamine, *Adv. Synth. Catal.*, **350** (2008) 135–142.
2. P. V. Gushchin, K. V. Luzyanin, M. N. Kopylovich, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Ni<sup>II</sup>-Mediated coupling between iminoisoindolinones and nitriles leading to unsymmetrical 1,3,5-triazapentadienato complexes, *Inorg. Chem.*, **47** (2008) 3088–3094; doi: 10.1021/ic702131k.
3. M. N. Kopylovich, M. Haukka, A. M. Kirillov, V. Yu. Kukushkin, A. J. L. Pombeiro Novel nickel(II) complex bearing phthalimido ligands derived from oxime-mediated transformation of phthalonitrile, *Inorg. Chem. Commun.*, **11** (2008) 117–120.
4. M. L. Kuznetsov, V. Yu. Kukushkin, A. J. L. Pombeiro, Reactivity of Pt- and Pd-bound nitriles towards nitrile oxides and nitrones: substitution versus cycloaddition, *Dalton Trans.*, 2008, 1312–1322.
5. K. V. Luzyanin, M. Galanski, V. Yu. Kukushkin, D. A. Garnovskii, A. J. L. Pombeiro, Regioselective addition of bifunctional oximehydroxamic acid by the hydroxamic group to Pt(IV)-coordinated nitriles, *Inorg. Chim. Acta*, **361** (2008) 1738–1743.
6. K. V. Luzyanin, P. V. Gushchin, A. J. L. Pombeiro, M. Haukka, V. I. Ovcharenko, V. Yu. Kukushkin, Oxidation of Pt-bound bis-hydroxylamine as a novel route to unexplored dinitrosoalkane ligated species, *Inorg. Chem.*, **47** (2008) 6919–6930; doi: 10.1021/ic800481a.
7. M. R. Tyan, N. A. Bokach, M.-J. Wang, M. Haukka, M. L. Kuznetsov, V. Yu. Kukushkin, Facile cyanamide–ammonia coupling mediated by *cis*- and *trans*-[Pt<sup>II</sup>L<sub>2</sub>] centers and giving metal-bound guanidines, *Dalton Trans.*, 2008, 5178–5188; doi: 10.1039/b806862c.
8. M. N. Kopylovich, K. V. Luzyanin, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Copper-mediated imine–nitrile coupling leading to unsymmetric 1,3,5-triazapentadienato complexes containing the incorporated iminoisoindolin-1-one moiety, *Dalton Trans.*, 2008, 5220–5224; doi: 10.1039/b805243c.
9. K. V. Luzyanin, A. J. L. Pombeiro, M. Haukka, V. Yu. Kukushkin, Coupling between 3-iminoisoindolin-1-ones and complexed isonitriles as a metal-mediated route to a novel type of palladium and platinum iminocarbene species, *Organometallics*, **27** (2008) 5379–5389; doi: 10.1021/om800517c.
10. A. V. Khripun, N. A. Bokach, S. I. Selivnov, M. Haukka, M. D. Revenco, V. Yu. Kukushkin, The first example of linkage isomerism for pyrazole ligands in platinum complexes, *Inorg. Chem. Commun.*, **11** (2008) 1352–1355; doi: 10.1016/j.inoche.2008.09.008.
11. P. V. Gushchin, M. R. Tyan, N. A. Bokach, M. D. Revenco, M. Haukka, M.-J. Wang, C.-H. Lai, P.-T. Chou, V. Yu. Kukushkin, Novel tailoring reaction for two adjacent coordinated nitriles giving platinum 1,3,5-triazapentadiene complexes, *Inorg. Chem.*, **47** (2008) 11487–11500; doi: 10.1021/ic702483w.

1. P. V. Gushchin, M. L. Kuznetsov, M. Haukka, M.-J. Wang, A. V. Gribov, V. Yu. Kukushkin, A novel reactivity mode for metal-activated dialkylcyanamide species: Addition of *N,N'*-diphenylguanidine to a *cis*-(R<sub>2</sub>NCN)<sub>2</sub>Pt<sup>II</sup> center giving an eight-membered chelated platinoguanidine, *Inorg. Chem.*, **48** (2009) 2583–2592; doi:10.1021/ic802109d.
2. N. A. Bokach, M. L. Kuznetsov, M. Haukka, V. I. Ovcharenko, E. V. Tretyakov, V. Yu. Kukushkin, Pt<sup>II</sup>-Complexed tetrahydroimidazo[1,2-*b*][1,2,4]oxadiazoles derived from metal-mediated 1,3-dipolar cycloaddition. Novel type of heterocycles, which do not exist without the metal center, *Organometallics*, **28** (2009) 1406–1413; doi:10.1021/om800963d.
3. N. A. Bokach, S. L. Ioffe, F. M. Dolgushin, M. Yu. Antipin, V. A. Tartakovskii, V. Yu. Kukushkin, Interplay between nitronates and nitriles accomplished in a Pt<sup>IV</sup>-mediated reaction, *Inorg. Chem. Commun.*, **12** (2009) 173–176; doi:10.1016/j.inoche.2008.12.006.
4. M. L. Kuznetsov, N. A. Bokach, V. Yu. Kukushkin, A. I. Dement'ev, Theoretical study of ammonia nucleophilic addition to nitriles in platinum complexes, *Russ. J. Gen. Chem.*, **79** (2009) 232–241.
5. K. V. Luzyanin, M. F. C. Guedes da Silva, V. Yu. Kukushkin, A. J. L. Pombeiro, First example of an imine addition to coordinated isonitrile, *Inorg. Chim. Acta (Topical Volume Dedicated to B. Lippert)*, **362** (2009) 833–838; doi: 10.1016/j.ica.2008.02.026.
6. M. N. Kopylovich, K. V. Luzyanin, V. Yu. Kukushkin, M. Haukka, A. J. L. Pombeiro, The first metal complexes bearing ligated 3-iminoisindolin-1-ones, *Inorg. Chim. Acta*, **362** (2009) 2994–2998; doi:10.1016/j.ica.2009.01.033.
7. K. V. Luzyanin, A. G. Tshovrebov, M. F. C. Guedes da Silva, M. Haukka, A. J. L. Pombeiro, V. Yu. Kukushkin, Metal-mediated [2 + 3] cycloaddition of nitrones to palladium-bound isonitriles, *Chem. Eur. J.*, **15** (2009) 5969–5978; doi:10.1002/chem.200802623.
8. A. G. Tskhovrebov, N. A. Bokach, M. Haukka, V. Yu. Kukushkin, Different routes for amination of platinum(II)-bound cyanoguanidine, *Inorg. Chem.*, **48** (2009) 8678–8688; doi: 10.1021/ic900263e.
9. N. A. Bokach, M. R. Tyan, G. G. Aleksandrov, M. Haukka, V. Yu. Kukushkin, Diplatinum(III) [Pt<sup>III</sup><sub>2</sub>Cl<sub>2</sub>(μ<sub>2</sub>-amidinate)<sub>4</sub>] compound derived from air oxidation of mononuclear *cis*-(NH<sub>3</sub>)<sub>2</sub>(amidine-κ<sup>1</sup>)<sub>2</sub>Pt<sup>II</sup>]<sup>2+</sup> complex, *Inorg. Chem. Commun.*, **12** (2009) 1061–1063; doi: 10.1016/j.inoche.2009.08.022.
10. K. V. Luzyanin, A. G. Tskhovrebov, M. C. Maia, M. F. C. Guedes da Silva, V. Yu. Kukushkin, A. J. L. Pombeiro, Novel metal-mediated (M = Pt, Pd) coupling between isonitriles and benzophenone hydrazone as a route to aminocarbene complexes

exhibiting high catalytic activity (M = Pd) in the Suzuki–Miyaura reaction, *Organometallics*, **28** (2009) 6559–6566; doi: 10.1021/om900682v.

11. N. A. Bokach, V. Yu. Kukushkin, M. Haukka, *trans*-Tetrachloridobis(diphenylacetonitrile)platinum(IV), *Acta Crystallogr., Sect. E*, **65** (2009) m636; doi:10.1107/S1600536809016535.