

LIST OF PUBLICATIONS

2018

23. Li, L.; Cruz, D.; **Savateev, A.**; Zhang, G.; Antonietti, M.; Zhao, Y., Photocatalytic cyanation of carbon nitride scaffolds: Tuning band structure and enhancing the performance in green light driven C-S bond formation. *Appl. Catal., B* **2018**, *229*, 249-253.
22. Kurpil, B.; Kumru, B.; Heil, T.; Antonietti, M.; **Savateev, A.***, Carbon Nitride Creates Thioamides in High Yields by Photocatalytic Kindler Reaction. *Green Chem.* **2018**, *20*, 838-842.
21. Kurpil, B.; Otte, K.; Antonietti, M.; **Savateev, A.***, Photooxidation of N-acylhydrazones to 1,3,4-Oxadiazoles Catalyzed by Heterogeneous Visible-Light-Active Carbon Nitride Semiconductor. *Appl. Catal., B* **2018**, *228*, 97-102.
20. Antonietti, M.; **Savateev, A.**, Splitting Water by Electrochemistry and Artificial Photosynthesis: Excellent Science but a Nightmare of Translation? *Chem. Rec.* **2018**, doi: 10.1002/tcr.201700062.

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19. Chen, Z.; **Savateev, A.**; Pronkin, S.; Papaefthimiou, V.; Wolff, C.; Willinger, M. G.; Willinger, E.; Neher, D.; Antonietti, M.; Dontsova, D., 'The easier the better' preparation of efficient photocatalysts – metastable poly(heptazine imide) salts. *Adv. Mater.* **2017**, *29* (32), 1700555.
18. Kurpil, B.; **Savateev, A.***; Papaefthimiou, V.; Zafeiratos, S.; Heil, T.; Özenler, S.; Dontsova, D.; Antonietti, M., Hexaazatriphenylene doped carbon nitrides—Biomimetic photocatalyst with superior oxidation power. *Appl. Catal., B* **2017**, *217*, 622-628.
17. Rodríguez, N. A.; **Savateev, A.**; Grela, M. A.; Dontsova, D., Facile Synthesis of Potassium Poly(heptazine imide) (PHIK)/Ti-Based Metal–Organic Framework (MIL-125-NH₂) Composites for Photocatalytic Applications. *ACS Appl. Mater. Interfaces* **2017**, *9* (27), 22941-22949.
16. **Savateev, A.***; Dontsova, D.; Kurpil, B.; Antonietti, M., Highly Crystalline Poly(heptazine imides) by Mechanochemical Synthesis for Photooxidation of Various Organic Substrates Using an Intriguing Electron Acceptor – Elemental Sulfur. *J. Catal.* **2017**, *350*, 203-211.
15. **Savateev, A.**; Pronkin, S.; Epping, J. D.; Willinger, M.; Wolff, C.; Neher, D.; Antonietti, M.; Dontsova, D., Potassium Poly(heptazine imides) from Aminotetrazoles: Shifting Band Gaps of Carbon Nitride-like Materials by 0.7 V for More Efficient Solar Hydrogen and Oxygen Evolution. *ChemCatChem* **2017**, *9* (1), 167–174.
14. **Savateev, A.**; Pronkin, S.; Epping, J. D.; Willinger, M. G.; Antonietti, M.; Dontsova, D., Synthesis of an electronically modified carbon nitride from a processable semiconductor, 3-amino-1,2,4-triazole oligomer, via a topotactic-like phase transition. *J. Mater. Chem. A* **2017**, *5*, 8394-8401.

13. **Savateev, A.**; Pronkin, S.; Willinger, M.; Antonietti, M.; Dontsova, D., Towards organic zeolites and inclusion catalysts: heptazine imide salts can exchange metal cations in the solid state. *Chem. - Asian J.* **2017**, *12* (13), 1517-1522.

12. Zhang, G.; Li, G.; Lan, Z.-a.; Lin, L.; **Savateev, A.**; Heil, T.; Zafeiratos, S.; Wang, X.; Antonietti, M., Optimizing Optical Absorption, Exciton Dissociation, and Charge Transfer of a Polymeric Carbon Nitride with Ultrahigh Solar Hydrogen Production Activity. *Angew. Chem. Int. Ed.* **2017**, *56* (43), 13445-13449.

11. Zhang, G.; **Savateev, A.**; Zhao, Y.; Li, L.; Antonietti, M., Advancing the $n \rightarrow \pi^*$ electron transition of carbon nitride nanotubes for H₂ photosynthesis. *J. Mater. Chem. A* **2017**, *5*, 12723-12728

10. **Savateev, A.***; Liedel, C.; Tröger-Müller, S.; León, A. S. d.; Antonietti, M.; Dontsova, D., Halogen free 1,2,3- and 1,2,4-triazolide based ionic liquids: synthesis and properties. *Chem. Commun.* **2017**, *53*, 10192-10195.

9. **Savateev, A.**; Ferreira, L. D. C.; Nieger, M.; Marques, M. d. F. V.; Kostyuk, A.; Grafova, I.; Grafov, A., Synthesis and Molecular Structures of Ferrocene and Zirconocene Featuring Bis(di(3,5-di-tert.-butyl)phenylphosphino) Groups. *ChemistrySelect* **2017**, *2* (19), 5432–5435.

8. Roger, J.; Royer, S.; Cattey, H.; Savateev, A.; Smaliy, R. V.; Kostyuk, A. N.; Hierso, J. C., Diastereoselective Synthesis of Dialkylated Bis(phosphino)ferrocenes: Their Use in Promoting Silver-Mediated Nucleophilic Fluorination of Chloroquinolines. *Eur. J. Inorg. Chem.* **2017**, *2017* (2), 330-339.

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7. **Savateev, A.**; Chen, Z. P.; Dontsova, D., Baking ‘crumbly’ carbon nitrides with improved photocatalytic properties using ammonium chloride. *RSC Adv.* **2016**, *6*, 2910-2913.

6. **Savateev, A.**; Vlasenko, Y.; Shtil, N.; Kostyuk, A., Reduction of lambda(5)-Phosphinines. *Eur. J. Inorg. Chem.* **2016**, *2016* (5), 628-632.

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5. **Savateev, A.**; Shtil, N. A.; Chaikovskaya, A. A.; Smaliy, R. V.; Vlasenko, Y. G.; Kostyuk, A. N., A Simple Approach to Vicinal Pyrrolylphosphane Aldehydes. *Heteroat. Chem* **2015**, *26* (1), 91-100.

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4. Marchenko, A.; Koidan, G.; Hurieva, A.; **Savateev, A.**; Rozhenko, A. B.; Sotiropoulos, J. M.; Shishkina, S. V.; Shishkin, O. V.; Kostyuk, A. A., A Convenient Approach to N-(Di-tert-butylphosphanyl)- and N-(Di-tert-butylphosphoroselenoyl) formamidinium Salts: Carbene Precursors. *Eur. J. Inorg. Chem.* **2014**, *2014* (7), 1192-1203.

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3. Allouch, F.; Vologdin, N. V.; Cattey, H.; Pirio, N.; Naoufal, D.; Kanj, A.; Smaliy, R. V.; **Savateev, A.**; Marchenko, A.; Hurieva, A.; Koidan, H.; Kostyuk, A. N.; Hierso, J. C., Ferrocenyl (P,N)-diphosphines incorporating pyrrolyl, imidazolyl or benzazaphospholylyl moieties: Synthesis, coordination to group 10 metals and performances in palladium-catalyzed arylation reactions. *J. Organomet. Chem.* **2013**, 735, 38-46.
2. Marchenko, A.; Koidan, G.; Hurieva, A.; **Savateev, A.**; Kostyuk, A., Facile synthesis of C-phosphanylformamidines via a carbene pathway. *Tetrahedron Lett.* **2013**, 54 (42), 5671-5673.
1. Smaliy, R. V.; Chaykovskaya, A. A.; Shtil, N. A.; **Savateev, A. S.**; Kostyuk, A. N., Synthesis of Precursors of 4-Phosphino-1H-pyrrole-3-carbaldehyde Derivatives. *Heteroat. Chem* **2013**, 24 (2), 146-151.