

List of publication of Dr. Djameladdin (Jamal) G. Musaev

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2015

1. Djameladdin G. Musaev, Brandon E. Haines „Factors Impacting the Mechanism of the Mono-N Protected Amino-Acid Ligand Assisted and Directing Group-Mediated CH Activation Catalyzed by Pd (II) Complex “, *ACS Catalysis*. **2015**, 5, 830-840.
2. Kei Muto, Junichiro Yamaguchi, Djameladdin G. Musaev, Kenichiro Itami, „Decarbonylative organoboron cross-coupling by nickel catalysis. The ester Suzuki–Miyaura coupling“, *Nature Communication*, **2015**, *accepted*
3. Alexey L. Kaledin, Tianquan Lian, Craig L. Hill, Djameladdin G. Musaev, „A Hybrid Quantum Mechanical Approach: Intimate Details of Electron Transfer Between Type I CdSe/ZnS Quantum Dots and an Anthraquinone Molecule“, *J. Phys. Chem. C*, **2015**, *accepted*
4. Brandon E. Haines, Huying Xu, Xiao-Chen Wang, Jin-Quan Yu, Djameladdin G. Musaev, „Mechanistic Details of Pd(II)-Catalyzed C-H Iodination with Molecular I₂: Oxidative Addition vs Electrophilic Cleavage“, *J. Am. Chem. Soc.* **2015**, 137, *in revision*
5. Alexey L. Kaledin, Kaliappan MuthuKumar, Tianquan Lian, Craig L. Hill, Djameladdin G. Musaev, „Key Details of the Interfacial Electron Transfer Between TiO₂ Surfaces and Adsorbate: Effect of Hydration of the TiO₂“, *J. Phys. Chem. C.*, **2015**, *submitted*
6. John Fielden, Jordan M. Sumliner, Nannan Han, Yurii V. Geletii, Xu Xiang, Djameladdin G. Musaev, Tianquan Lian, Craig L. Hill, „Water Splitting with Polyoxometalate-Treated Photoanodes: Enhancing Performance through Sensitizer Design“, *Chem. Sci.*, **2015**, *accepted*

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7. Travis M. Figg, Sehoon Park, Juhyeon Park, Sukbok Chang, Djameladdin G. Musaev, „Comparative Mechanistic Investigations of Direct C–H Amination of Benzamides Catalyzed by Cp*-Based Group 9 Metal Complexes“, *Organometallics*. **2014**, 33 (15), pp 4076–4085.
8. Huiying Xu, Kei Muto, Junichiro Yamaguchi, Cunyuan Zhao, Kenichiro Itami, Djameladdin G. Musaev, „Key Mechanistic Features of Ni-catalyzed C–H/C–O Biaryl Coupling of Azoles and Naphthalen-2-yl Pivalates“, *J. Am. Chem. Soc.* **2014**, 136 (42), pp. 14834-14844.
9. Adrián Varela-Álvarez, Djameladdin G. Musaev, “Fundamental Aspects of the Metal-Catalyzed C–H Bond Functionalization by Diazocarbenes: Guiding Principles for Design of Catalyst with Non-redox-Active Metal (Such as Ca) and Non-Innocent Ligand.” In “*Understanding Organometallic Reaction Mechanisms and Catalysis. Experimental and Computational Tools*”, Ed. Ananikov, V.; Wiley-VCH Verlag GmbH & Co. KGaA, **2014**, pp 17-40, Weinheim, Germany



10. Elliot N. Glass, John Fielden, Alexey L. Kaledin, Djamaladdin G. Musaev, Tianquan Lian, Craig L. Hill, „Extending Metal-to-Polyoxometalate Charge Transfer Lifetimes: The Effect of Heterometal Location“ *Chem.-A Eur. Journal*, **2014**, *20* (15), 4297-4307.
11. Hongjin Lv, Weiwei Guo, Kaifeng Wu, Zheyuan Chen, John Bacsá, Djamaladdin G. Musaev, Yurii V. Geletii, Sarah M. Lauinger, Tianquan Lian, Craig L. Hill, „A Noble-Metal-Free, Tetranickel Polyoxotungstate Catalyst for Efficient Photocatalytic Hydrogen Evolution“, *J. Am. Chem. Soc.* **2014**, *136* (40), pp. 14015-14018.
12. Djamaladdin G. Musaev, Travis M. Figg, Alexey L. Kaledin, “Versatile Reactivity of Pd-Catalysts: Mechanistic Features of the Mono-N-Protected Amino-Acid Ligand and Cesium-Halide Base in Pd-Catalyzed C-H Bond Functionalization“ *Chem. Soc. Rev.* **2014**, *43*, 5009-5031. DOI: 10.1039/C3CS60447K
13. Hongjin Lv, Jie Song, Yurii V. Geletii, James W. Vickers, Jordan M. Sumliner, Djamaladdin G. Musaev, Paul Kögerler, Petro F. Zhuk, John Bacsá, Guibo Zhu, Craig L. Hill, „An Exceptionally Fast Homogeneous Carbon-Free Cobalt-Based Water Oxidation Catalyst“, *J. Am. Chem. Soc.* **2014**, *136* (26), pp. 9268-9271.
14. Alexey L. Kaledin, Tianquan Lian, Craig L. Hill, Djamaladdin G. Musaev, „An infinite order discrete variable representation of an effective mass Hamiltonian: Application to exciton wavefunctions in quantum confined nanostructures.“ *J. Theor. Comp. Chem.*, **2014**, *10* (8), pp. 3409–3416.
15. Chongchao Zhao, Elliot N. Glass, Bryant Chica, Djamaladdin G. Musaev, Jordan M. Sumliner, R. Brian Dyer, Tianquan Lian, Craig L. Hill, “All-Inorganic Networks and Tetramer Based on Tin (II)-Containing Polyoxometalates: Tuning Structural and Spectral Properties with Lone-Pairs”, *J. Am. Chem. Soc.* **2014**, *136* (34), 12085-12091.

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18. James W. Vickers, Hongjin Lv, Jordan M. Sumliner, John Fielden, Guibo Zhu, Zhen Luo, Djamaladdin G. Musaev, Yurii V. Geletii, Craig L. Hill, „Hydrolytic stability studies of $[Co_4(H_2O)_2(\alpha-PW_9O_{34})_2]^{10-}$. Additional evidence that transition-metal substituted polyoxometalates are molecular water oxidation catalysts.“, *J. Am. Chem. Soc.*, **2013**, *135* (38), pp. 14110–14118
19. Hongjin Lv, Jie Song, Haiming Zhu, Yurii V. Geletii, John Bacsá, Chongchao Zhao, Tianquan Lian, Djamaladdin G. Musaev, and Craig L. Hill, „Visible-Light-Driven Hydrogen Evolution

from Water Using a Noble-Metal-Free Polyoxometalate Catalyst“, *J. of Catalysis*, **2013**, *307*, 48-54

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