

**Списък на научните публикации на доц. д-р Християн Александров
Александров, представени за участие в конкурса за професор**

Общо: 37

Статии

Общо: 36

1. „Adsorbed and Subsurface Absorbed Hydrogen Atoms on Bare and MgO(100)-Supported Pd and Pt Nanoparticles”

Sergey M. Kozlov, Hristiyan A. Aleksandrov, and Konstantin M. Neyman

The Journal of Physical Chemistry C, **2014**, *118* (28), 15242–15250

IF(2014) = 4.772 (14 цитата); Q1

2. “New method for preparation of delivery systems of poorly soluble drugs on the basis of functionalized mesoporous MCM-41 nanoparticles”

M. Popova, A. Szegedi, K. Yoncheva, S. Konstantinov, G. P. Petrova, H. A. Aleksandrov, G. N. Vayssilov, P. Shestakova

Microporous and Mesoporous Materials, **2014**, *198*, 247–255

IF(2014) = 3.453 (20 цитата); Q1

3. “DFT studies of oxygen dissociation on the 116-atom platinum truncated octahedron particle”

Paul C. Jennings, Hristiyan A. Aleksandrov, Konstantin M. Neyman and Roy L. Johnston

Physical Chemistry Chemical Physics, **2014**, *16*, 26539–26545.

IF(2014) = 4.493 (14 цитата); Q1

4. “Effect of Si/Al Ratio on the Nature and Reactivity of HY Zeolite-Supported Rhodium Dicarboxyl Complexes”

Artem Vityuk, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Shuguo Ma, Oleg S. Alexeev, and Michael D. Amiridis

The Journal of Physical Chemistry C, **2014**, *118* (46), 26772–26788.

IF(2014) = 4.772 (7 цитата); Q1

5. “How Absorbed Hydrogen Affects the Catalytic Activity of Transition Metals”

Hristiyan A. Aleksandrov, Sergey M. Kozlov, Svetlana Schauermaun, Georgi N. Vayssilov and Konstantin M. Neyman

Angewandte Chemie International Edition, **2014**, *53*, 13371–13375.

IF(2014) = 11.261 (32 цитата); Q1

6. “Energetic Stability of Absorbed H in Pd and Pt Nanoparticles in a More Realistic Environment”

Sergey M. Kozlov, Hristiyan A. Aleksandrov, and Konstantin M. Neyman

The Journal of Physical Chemistry C, **2015**, *119* (9), 5180–5186.

IF(2015) = 4.509 (10 цитата); Q1

7. “O₂ Dissociation on M@Pt Core–Shell Particles for 3d, 4d, and 5d Transition Metals”

Paul C. Jennings, Hristiyan A. Aleksandrov, Konstantin M. Neyman and Roy L. Johnston

The Journal of Physical Chemistry C, **2015**, *119* (20), 11031–11041.

IF(2015) = 4.509 (26 цитата); Q1

8. “Formation of N₃[−] during interaction of NO with reduced ceria”

Mihail Y. Mihaylov, Elena Z. Ivanova, Hristiyan A. Aleksandrov, Petko St. Petkov, Georgi N. Vayssilov and Konstantin I. Hadjiivanov

Chemical Communications, **2015**, *51*, 5668–5671.

IF(2015) = 6.567 (4 цитата); Q1

9. “FTIR and density functional study of NO interaction with reduced ceria: Identification of N₃[−] and NO^{2−} as new intermediates in NO conversion”

Mihail Y. Mihaylov, Elena Z. Ivanova, Hristiyan A. Aleksandrov, Petko St. Petkov, Georgi N. Vayssilov and Konstantin I. Hadjiivanov

Applied Catalysis B: Environmental, **2015**, *176–177*, 107–119.

IF(2015) = 8.328 (12 цитата); Q1

10. “Inhibition of Palm Oil Oxidation by Zeolite Nanocrystals”

Kok-Hou Tan, Hussein Awala, Rino R. Mukti, Ka-Lun Wong, Baptiste Rigaud, Tau Chuan Ling, Hristiyan A. Aleksandrov, Iskra Z. Koleva, Georgi N. Vayssilov, Svetlana Mintova, and Eng-Poh Ng

Journal of Agricultural and Food Chemistry, **2015**, *63* (18), pp 4655–4663.

IF(2015) = 2.857 (1 цитат); Q1

11. “The structure and stability of reduced and oxidized mononuclear platinum species on nanostructured ceria from density functional modeling”

Hristiyan A. Aleksandrov, Konstantin M. Neyman, and Georgi N. Vayssilov

Physical Chemistry Chemical Physics, **2015**, *17*, 14551–14560.

IF(2015) = 4.449 (4 цитата); Q1

12. “Effect of Si/Al Ratio and Rh Precursor Used on the Synthesis of HY Zeolite-Supported Rhodium Carbonyl Hydride Complexes”

Konstantin Khivantsev, Artem Vityuk, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Oleg S. Alexeev, and Michael D. Amiridis

The Journal of Physical Chemistry C, **2015**, *119* (30), 17166–17181.

IF(2015) = 4.509 (7 цитата); Q1

13. “Relative stability and reducibility of CeO₂ and Rh/CeO₂ species on the surface and in the cavities of γ -Al₂O₃: a periodic DFT study”

Iskra Z. Koleva, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Renata Duarte and Jeroen A. van Bokhoven

Physical Chemistry Chemical Physics, **2015**, *17*, 22389-22401.

IF(2015) = 4.449 (4 цитата); Q1

14. “Experimental and theoretical study of quercetin complexes formed on pure silica and Zn-modified mesoporous MCM-41 and SBA-16 materials”

Margarita Popova, Ivalina Trendafilova, Agnes Szegedi, Judith Mihaly, Peter Nemeth, Sylvia G. Marinova, Hristiyan A. Aleksandrov, Georgi N. Vayssilov

Microporous and Mesoporous Materials, **2016**, *228*, 256-265.

IF(2016) = 3.615 (5 цитата); Q1

15. “Can the state of platinum species be unambiguously determined by the stretching frequency of an adsorbed CO probe molecule?”

Hristiyan A. Aleksandrov, Konstantin M. Neyman, Konstantin I. Hadjiivanov and Georgi N. Vayssilov

Physical Chemistry Chemical Physics, **2016**, *18*, 22108-22121.

IF(2016) = 4.123 (16 цитата); Q1

16. “Stabilization of Small Platinum Nanoparticles on Pt-CeO₂ Thin Film Electrocatalysts During Methanol Oxidation”

Olaf Brummel, Fabian Waidhas, Firas Faisal, Roman Fiala, Mykhailo Vorokhta, Ivan Khalakhan, Martin Dubau, Alberto Figueroba, Gabor Kovacs, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Sergey M. Kozlov, Konstantin M. Neyman, Vladimír Matolín, and Jörg Libuda

The Journal of Physical Chemistry C, **2016**, *120* (35), 19723–19736.

IF(2016) = 4.536 (8 цитата); Q1

17. “Decomposition behavior of platinum clusters supported on ceria and γ -alumina in the presence of carbon monoxide”

Iskra Z. Koleva, Hristiyan A. Aleksandrov and Georgi N. Vayssilov

Catalysis Science & Technology, **2017**, 7, 734-742.

IF(2017) = 5.365 (1 цитат); Q1

18. “Synthesis, Modeling, and Catalytic Properties of HY Zeolite-Supported Rhodium Dinitrosyl Complexes”

Konstantin Khivantsev, Artem Vityuk, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Douglas Blom, Oleg S. Alexeev, and Michael D. Amiridis

ACS Catalysis, **2017**, 7, 5965–5982.

IF(2017) = 11.384 (1 цитат); Q1

19. “Approaching complexity of alkyl hydrogenation on Pd via density-functional modelling”

Hristiyan A. Aleksandrov, Sergey M. Kozlov, Georgi N. Vayssilov and Konstantin M. Neyman

Physical Chemistry Chemical Physics, **2017**, 19, 21514- 21521.

IF(2017) = 3.906 (1 цитат); Q1

20. “One-pot synthesis of silanol-free nanosized MFI zeolite”

Julien Grand, Siddulu Naidu Talapaneni, Aurélie Vicente, Christian Fernandez, Eddy Dib, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Richard Retoux, Philippe Boullay, Jean-Pierre Gilson, Valentin Valtchev, and Svetlana Mintova

Nature Materials, **2017**, 16, 1010–1015.

IF(2017) = 39.235 (21 цитата); Q1

21. “Elucidation of the higher coking resistance of small versus large nickel nanoparticles in methane dry reforming via computational modeling”

Hristiyan A. Aleksandrov, Nikolaos Pegios, Regina Palkovits, Kalin Simeonov and Georgi N. Vayssilov

Catalysis Science & Technology, **2017**, 7, 3339-3347.

IF(2017) = 5.365 (3 цитата); Q1

22. “Structural transformations and adsorption properties of PtNi nanoalloy thin film electrocatalysts prepared by magnetron co-sputtering”

Olaf Brummel, Fabian Waidhas, Ivan Khalakhan, Mykhailo Vorokhta, Martin Dubau, Gábor Kovács, Hristiyan A. Aleksandrov, Konstantin M. Neyman, Vladimir Matolín, Jörg Libuda

Electrochimica Acta, **2017**, 251, 427–441.

IF(2017) = 5.116 (2 цитата); Q1

23. “Species formed during NO adsorption and NO+O₂ co-adsorption on ceria: A combined FTIR and DFT study”

Mihail Y. Mihaylov, Elena Z. Ivanova, Hristiyan A. Aleksandrov, Petko St. Petkov, Georgi N. Vayssilov, Konstantin I. Hadjiivanov

Molecular Catalysis, **2018**, *451*, 114-124.

IF(2018) = 2.938 (1 цитат); Q1

24. “Amino-modified KIT-6 mesoporous silica/polymer composites for quercetin delivery: Experimental and theoretical approaches”

Margarita Popova, Ivalina Trendafilova, Ivelina Tsacheva, Violeta Mitova, Mariya Kyulavska, Neli Koseva, Judith Mihály, Denitsa Momekova, Georgi Momekov, Hristiyan A. Aleksandrov, Sylvia G. Marinova, Petko St. Petkov, Georgi N. Vayssilov, Agnes Szegedi

Microporous and Mesoporous Materials, **2018**, *270*, 40-47.

IF(2018) = 4.182 (4 цитата); Q1

25. “Band Gap Modulation of Graphene on SiC”

Stefan Kolev, Victor Atanasov, Hristiyan Aleksandrov, and Teodor Milenov

The European Physical Journal B, **2018**, *91*:272 (1-7).

IF(2018) = 1.440; Q2

26. “Structure and reducibility of yttrium-doped cerium dioxide nanoparticles and (111) surface”

Hristiyan A. Aleksandrov, Iskra Z. Koleva, Konstantin M. Neyman, Tatyana T. Tabakova, and Georgi N. Vayssilov

RSC Advances, **2018**, *8*, 33728–33741

IF(2018) = 3.049 (1 цитат); Q1

27. “Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO_x Adsorbers”

Konstantin Khivantsev, Nicholas R. Jaegers, Libor Kovarik, Jonathan C. Hanson, Franklin (Feng) Tao, Yu Tang, Xiaoyan Zhang, Iskra Z. Koleva, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Yong Wang, Feng Gao, and János Szanyi

Angewandte Chemie International Edition, **2018**, *130*, 16914–16919.

IF(2018) = 12.257 (9 цитата); Q1

28. “Room-Temperature Ethene Hydrogenation Activity of Transition-Metal-Free HY Zeolites”

Artem Vityuk, Konstantin Khivantsev, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Oleg S. Alexeev, and Michael D. Amiridis

ACS Catalysis, **2019**, 9, 839–847.

IF(2018)¹ = 12.221 (2 цитата); Q1

29. “Modified mesoporous silica nanoparticles coated by polymer complex as novel curcumin delivery carriers”

Ágnes Szegedi, Pavletta Shestakova, Ivalina Trendafilova, Judith Mihayi, Ivelina Tsacheva, Violeta Mitova, Mariya Kyulavska, Neli Koseva, Denitsa Momekova, Spiro Konstantinov, Hristiyan A. Aleksandrov, Petko St. Petkov, Iskra Z. Koleva, Georgi N. Vayssilov, Margarita Popova

Journal of Drug Delivery Science and Technology, **2019**, 49, 700–712.

IF(2018)¹ = 2.606; Q2

30. “Study of active surface centers of Pt/CeO₂ catalysts prepared using radio-frequency plasma sputtering technique”

Andrey I. Stadnichenko, Valerii V. Muravev, Sergey V. Koscheev, Vladimir I. Zaikovskii, Hristiyan A. Aleksandrov, Konstantin M. Neyman, Andrei I. Boronin

Surface Science, **2019**, 679, 273-283.

IF(2018)¹ = 1.849 (3 цитата); Q1

31. “Subsurface Carbon: A General Feature of Noble Metals”

Oriol Piqué, Iskra Z. Koleva, Francesc Viñes, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Francesc Illas

Angewandte Chemie International Edition, **2019**, 58, 1744-1748.

IF(2018)¹ = 12.257 (1 цитат); Q1

32. “Characterization and temperature evolution of iron-containing species in HZSM-5 zeolite prepared from different iron sources”

Nichapha Senamart, Siriphorn Buttha, Waenkaew Pantupho, Iskra Z. Koleva, Sirinuch Loiha, Hristiyan A. Aleksandrov, Jatuporn Wittayakun, Georgi N. Vayssilov

Journal of Porous Materials, **2019**, 26(4), 1227–1240.

IF(2018)¹ = 1.947; Q2

¹ За публикациите, за които в годината на публикуване не е наличен импакт фактор (IF) и квантил за списанието, са използвани наличните IF и квантил за най-близката до нея година.

33. „Hydrophobic Tungsten-Containing MFI-Type Zeolite Films for Exhaust Gas Detection”
Julien Grand, Siddulu Naidu Talapaneni, Hristiyan A. Aleksandrov, Georgi N. Vayssilov,
Svetlana Mintova

ACS Applied Materials & Interfaces, **2019**, *11* (13), pp 12914–12919

IF(2018)¹ = 8.456; Q1

34. “Interaction of Graphene with Out-of-Plane Aromatic Hydrocarbons”

S. K. Kolev, H. A. Aleksandrov, V. A. Atanasov, V. N. Popov, and T. I. Milenov

The Journal of Physical Chemistry C, **2019**, in press, DOI: 10.1021/acs.jpcc.9b03550

IF(2018)¹ = 4.309; Q1

35. “Paraquat adsorption on NaY zeolite at various Si/Al ratios: A combined experimental and computational study”

Chalermpan Keawkumay, Wina Rongchapo, Narongrit Sosa, Suwit Suthirakun, Iskra Z. Koleva, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Jatuporn Wittayakun

Materials Chemistry and Physics, **2019**, *238*, 121824 (1-8),

IF(2018)¹ = 2.781; Q2

36. „Verapamil delivery systems on the basis of mesoporous ZSM-5/KIT-6 and ZSM-5/SBA-15 polymer nanocomposites as a potential tool to overcome MDR in cancer cells”

Margarita Popova, Rositsa Mihaylova, Georgi Momekov, Denitsa Momekova, Hristina Lazarova, Ivalina Trendafilova, Violeta Mitova, Neli Koseva, Judith Mihályi, Pavletta Shestakova, Petko St. Petkov, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Spiro Konstantinov, Ágnes Szegedi

European Journal of Pharmaceutics and Biopharmaceutics, **2019**, *142*, 460–472.

IF(2018)¹ = 4.708; Q1

Учебно помагало

Общо: 1

37. „Ръководство за лабораторни упражнения със сборник от задачи по Органична химия за студентите от специалност „Фармация””

Невена Петкова-Янкова, Никола Бурджиев, Християн Александров, Росица Николова, Георги Вайсилов

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