

List of the peer-reviewed publications

(with the IF of the journal for the previous year)

1. Hassan Abul-Futouh, Yulian Zagranjarski, Carolin Müller, Martin Schulz, Stephan Kupfer, Helmar Görts, a Mohammad El-khateeb, Stefanie Gräfe, Benjamin Dietzek, Kalina Peneva and Wolfgang Weigand, [FeFe]-Hydrogenase H-cluster mimics mediated by naphthalene monoimide derivatives of peri-substituted dichalcogenides, *Dalton Trans.*, 2017, 46, 11180-11191. DOI: 10.1039/C7DT02079A Impact Factor 2016/2017: 4.029 Open access: NO
2. Hristiyan A. Aleksandrov, Nikolaos Pegios, Regina Palkovits, Kalin Simeonov and Georgi N. Vayssilov “Elucidation of the higher coking resistance of small versus large nickel nanoparticles in methane dry reforming via computational modeling” *Catalysis Science & Technology*, 7, 3339-3347, 2017. DOI: 10.1039/C7CY00773F Impact Factor: 5.773 Open access: NO
3. Hristiyan A. Aleksandrov, Sergey M. Kozlov, Georgi N. Vayssilov, Konstantin M. Neyman “Approaching complexity of alkyl hydrogenation on Pd *via* density-functional modelling” *Phys. Chem. Chem. Phys.*, 19, 21514-21521, 2017. DOI: 10.1039/C7CP03516K Impact Factor: 4.123 Open access: NO
4. Angelova, S. E.; Nikolova, V. K.; Dudev, T. M. Determinants of the host-guest interactions between alpha-, beta- and gamma-cyclodextrins and group IA, IIA and IIIA metal cations: a DFT/PCM study *Physical Chemistry Chemical Physics*, 19, (23), 15129-15136 Published: JUN 21 2017 Impact Factor 2016: 4.123 Open access: NO
5. Angelova, Silvia; Nikolova, Valia; Molla, Nevse; et al, Factors Governing the Host-Guest Interactions between IIA/IIB Group Metal Cations and alpha-Cyclodextrin: A DFT/CDM Study *Inorganic chemistry*, 56 (4), 1981-1987 Published: FEB 20 2017 Impact Factor 2016: 4.857 Open access: NO
6. Baramov, T. I.; Burdzhiev, N. T.; Pandova, B. T.; Todorova, V. Z.; Yanev, S. G.; Stanoeva, E. R.; Chaney, C. D. “Synthesis of bioactive aminoacid derivatives of trans-5-aminomethyl-1-benzyl-6-phenylpiperidin-2-one” *BULGARIAN CHEMICAL COMMUNICATIONS (Special Issue: B)*, 49, 55-63, 2017 Impact Factor 2016: 0.238 Open access: NO
7. Milen G. Bogdanov & Ivan Svinyarov “Efficient purification of halide-based ionic liquids by means of improved apparatus for continuous liquid-liquid extraction” *Separation and Purification Technology*, 2017 DOI: 10.1016/j.seppur.2017.07.039 Impact Factor 2016: 3.359 Open access: NO
8. Milen G. Bogdanov & Ivan Svinyarov “Distribution of N-Methylimidazole in Ionic Liquids/Organic Solvents Systems” *Processes*, 5(4), 52, 2017 DOI: 10.3390/pr5040052 Impact Factor 2016: NO Open access: YES
9. Assya Bojinova, Nina Kaneva, Karolina Papazova, Alexandar Eliyas, Stoyanova-Eliyas, Dimitre Dimitrov ”Green synthesis of UV and visible light active TiO₂/WO₃ powders and films for malachite green and ethylene photodegradation” *Reaction Kinetics, Mechanisms and Catalysis* February 2017 DOI: 10.1007/s11144-016-1128-0. Impact Factor 2016: 1.264 Open access: NO
10. Olaf Brummel, Fabian Waidhas, Ivan Khalakhan, Mykhailo Vorokhta, Martin Dubau, Gábor Kovács, Hristiyan A. Aleksandrov, Konstantin M. Neyman, Vladimir Matolín, Jörg Libuda “Structural transformations and adsorption properties of PtNi nanoalloy thin

- film electrocatalysts prepared by magnetron co-sputtering” *Electrochimica Acta*, 251, 427–441, 2017. DOI: 10.1016/j.electacta.2017.08.062 Impact Factor: 4.798 Open access: NO
11. Diana P. Cholakova, Zhulieta N. Valkova, Slavka S. Tcholakova, Nikolai D. Denkov, Stoyan K. Smoukov "Self-Shaping" of Multicomponent Drops” *Langmuir* 33, 5696–5706, 2017 DOI: 10.1021/acs.langmuir.7b01153 Impact Factor 2017: 3.833 Open access: NO
 12. Lydia M. Dimitrova, Plamen V. Petkov, Peter A. Kralchevsky, Simeon D. Stoyanov, Eddie G. Pelan “Production and characterization of stable foams with fine bubbles from solutions of hydrophobin HFBII and its mixtures with other proteins” *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 521, 92-104, 2017 DOI: 10.1016/j.colsurfa.2016.06.018 Impact Factor 2016: 2.714
 13. Desislava Dimova, Stoyan Pisov, Nikolay Panchev, Miroslava Nedyalkova, Sergio Madurga, Ana Proykova, Insight into electric field-induced rupture mechanism of water-in-toluene emulsion films from a model system, *The Journal of Chemical Physics* 146, 194703 (2017), DOI: <http://dx.doi.org/10.1063/1.4983163> Impact Factor 2016: 2.965 Open access: NO
 14. Dudev, Todor; Grauffel, Cedric; Lim, Carmay, How Native and Alien Metal Cations Bind ATP: Implications for Lithium as a Therapeutic Agent , *Scientific reports*, 7 Article Number: 42377 Published: FEB 14 2017 Impact Factor 2016:4.259 Open access: YES
 15. B. Galabov, G. Koleva, H. F. Schaefer , Positional selectivity in the interaction of toluene with nitronium ion, B. Galabov, G. Koleva, H. F. Schaefer III, *Mol. Phys.* (2017), doi 10.1080/00268976.2017.1318225 Impact Factor 2016: 1.870 Open access: YES
 16. M. S. Gerova, E. A. Aleksandrova, Y. B. Ivanova, D. V. Stanisheva, G. Ts. Momekov, O. I. Petrov, Synthesis and cytotoxic activity of new heterocyclic analogues of resveratrol, containing benzoxazolone ring, *Bulg. Chem. Commun.*, 2017, 49, Special Edition B, 71-75. IF: 0.238
 17. M. S. Gerova, F. E. Svetoslavov, B. L. Shivachev, Rositsa P. Nikolova, O. I. Petrov, Synthesis of 4-acetyl-2(3H)-benzothiazolone: Sulfurbioisostere of benzoxazolone allelochemicals, *Phosphorus Sulfur Silicon Relat. Elem.*, 2017, 192(8), 905-910; dx.doi.org/10.1080/10426507.2017.1321645. *Journal IF* 0.8.
 18. Ivo Grabchev, Stanislava Yordanova, Paula Bosch, Evgenia Vasileva-Tonkova, Rositsa Kukeva, Stanimir Stoyanov, Radostina Stoyanova “Structural characterization of 1,8-naphthalimides and in vitro microbiological activity of their Cu(II) and Zn(II) complexes *Journal of Molecular Structure*, 2017, 1130, 974-983 <https://doi.org/10.1016/j.molstruc.2016.10.073>. DOI: 10.1016/j.molstruc.2016.10.073 Impact Factor 2016: 1.753 Open access: NO
 19. 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 “One-pot synthesis of silanol-free nanosized MFI zeolite” *Nature Materials*, 2017, in press. DOI: 10.1038/nmat4941 Impact Factor: 39.737 Open access: NO
 20. S. Gutzov, N. Danchova, R. Kirilova, V. Petrov, S. Yordanova, “Preparation and luminescence of silica aerogel composites containing an europium (III) phenanthroline nitrate complex” *Journal of Luminescence* 183 (2017) 108–112. Impact Factor 2016: 2.69 DOI: 10.1016/j.jlumin.2016.11.029 Open access: NO

21. Pierre A. Haas, Raymond E. Goldstein, Stoyan K. Smoukov, Diana P. Cholakova, Nikolai D. Denkov “Theory of Shape-Shifting Droplets” *Physical Review Letters* 118, 088001, 2017 DOI: 10.1103/PhysRevLett.118.088001 Impact Factor 2016: 8.462 Open access: NO
22. Hristo Hristov, Miroslava Nedyalkova, Sergio Madurga, Vasil Simeonov. Boron Oxide Glasses and Nanocomposites: Synthetic, Structural and Statistical Approach. *Journal of Materials Science & Technology* 33(6), 535-540, 2017 DOI: 10.1016/j.jmst.2016.07.016 Impact Factor 2016:2.764 Open access: NO
23. Hristo Hristov, Miroslava Nedyalkova, Vasil Simeonov. Statistical Approach to Study Lithium Magnesium Metaborate Glasses. *Open Chemistry* 15(1), 61 – 66, 2017. DOI: 10.1515/chem-2017-0008 Impact Factor 2016: 1.207 Open access: YES
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“New cyclometalated Iridium(III) beta-dicetone complex as phosphorescent dopant in Organic light emitting devices” *Journal of Physics: Conference Series* 2017 journal-article DOI: 10.1088/1742-6596/794/1/012021 EID: 2-s2.0-85016108772 URL: <http://www.scopus.com/inward/record.url?eid=2-s2.085016108772&partnerID=MN8TOARS> Impact Factor 2016: Open access: YES
25. Veronika I. Ivanova, Romyana D. Stanimirova, Krassimir D. Danov, Peter A. Kralchevsky, Jordan T. Petkov. “Sulfonated methyl esters, linear alkylbenzene sulfonates and their mixed solutions: Micellization and effect of Ca²⁺ ions.” *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 519, 87–97, 2017 DOI: 10.1016/j.colsurfa.2016.06.039 Impact Factor 2016: 2.714 Open access: NO; Citations: 1
26. Nina V. Kaneva, Assya S. Bojinova, Karolina I. Papazova, Dimitre Tz. Dimitrov, Alexander E. Eliyas ”Investigation of photocatalytic properties of pure and Ln (La³⁺, Eu³⁺, Ce³⁺) – modified ZnO powders synthesized by thermal method ” *Bulgarian Chemical Communications* 49 Special Issue G, 172-176, 2017 ISSN: 0324-1130 Impact Factor: 0.238 Open access: YES
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28. Stoyan I. Karakashev “Hydrodynamics of Foams”, *Experiments in Fluids*, 58: 91, 1-40, 2017 DOI: 10.1007/s00348-017-2332-z Impact factor 2017: 1.832 Open access: No
29. Konstantin Khivantsev, Artem Vityuk, Hristiyan A. Aleksandrov, Georgi N. Vayssilov, Douglas Blom, Oleg S. Alexeev, and Michael D. Amiridis “Synthesis, Modeling, and Catalytic Properties of HY Zeolite-Supported Rhodium Dinitrosyl Complexes” *ACS Catalysis*, 7, 5965–5982, 2017. DOI: 10.1021/acscatal.7b00864 Impact Factor: 10.614 Open access: NO
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31. Iskra Z. Koleva, Hristiyan A. Aleksandrov and Georgi N. Vayssilov
Decomposition behavior of platinum clusters supported on ceria and γ -alumina in the presence of carbon monoxide” *Catalysis Science & Technology*, 7, 734-742, 2017. DOI: 10.1039/C6CY02586B Impact Factor 2016: 5.773 Open access: NO

32. Kostova, Bistra; Kamenska, Elena; Georgieva, Dilyana; Balashev, Konstantin; Rachev, Dimiter; Georgiev, George “Design and Concept of Polyzwitterionic Copolymer Microgel Drug Delivery Systems In Situ Loaded with Non-steroidal Anti-inflammatory Ibuprofen” AAPS PHARMSCITECH Volume: 18 Issue: 1 Pages: 166-174 Published: JAN 2017 DOI: 10.1208/s12249-016-0503-5 Impact Factor 2016: 2.451 Open access: NO
33. Ivan I. Lesov, Slavka S. Tcholakova, Monika I. Kovadzhieva, Tamar Saison, Marie Lamblet, Nikolai D. Denkov “Role of Pickering Stabilization and Bulk Gelation for the Preparation and Properties of Solid Silica Foams” Journal of Colloid and Interface Science 504, 48–57, 2017 DOI:10.1016/j.jcis.2017.05.036 Impact Factor 2016: 4.233 Open access: NO
34. Rumén H. Lyapchev, Miroslav G. Dangelov, Nikolay G. Vassilev, Petar Y. Petrov “Synthesis and structural characterization of N-[2-(diphenylphosphorothioyl)phenyl]-2-(phenylamino)benzamide” Bulgarian Chemical Communications, 2017, 49 B, 50–54. Impact Factor 2016: 0.238 Open access: YES
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37. G. Marinov, A. Marinova, M. Milanova, S. Happel, N. A. Lebedev, A. Drokhlyansky, N. Mirzayev, D. V. Karaivanov, D. V. Filosofov, Sorption of rare-earth elements and Ac on UTEVA resin in different acid solutions, Solvent Extraction and Ion Exchange, 35, 2017 <http://dx.doi.org/10.1080/07366299.2017.1336404> Impact Factor 2016/17: 2.456
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39. Velina K. Markova, Georgi N. Vayssilov, Alexander Genest, Notker Rösch, “Ethene hydrogenation on zeolite-supported rhodium clusters. A mechanistic study by density functional and microkinetic modeling.” *Applied Catalysis A: General*, 543, 201–208, 2017. DOI: 10.1016/j.apcata.2017.06.036. Impact Factor: 4.339 Open access: NO
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41. Yu-Ichiro Matsushita, Galia Madjarova, José A. Flores-Livas, John K. Dewhurst, Claudia Felser, Sangita Sharma, Eberhard K. U. Gross “L10 Stacked Binaries as Candidates for Hard-Magnets: FePt, MnAl and MnGa” *Annalen der Physik*, 529, 1600412(6 pp), 2017 DOI: 10.1002/andp.201600412 Impact Factor 2016: 3.039 Open access: NO

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