

Списък на публикациите на учените от ИОНХ-БАН за 2012 г.

1. Списък на публикациите, които са реферирани и индексирани в световната система за реферирание, индексирание и оценяване

1.1. Излезли от печат

1. O. Bozhkov, C. Tzvetkova, L. Borisova, B. Bryskin.
Phytomining: New method for rhenium.
Advanced Materials and Processes 170(5), 2012, 34-37. [ISSN: 0882-7958](#)
2. A. Detcheva, J. Hassler, R. Georgieva.
Feasibility of ETV-ICP-OES for characterization of archaeological glasses.
Analytical Letters 45(5-6), 2012, 603-612.
[ISSN: 0003-2719](#), [E-ISSN: 1532-236X \(electronic\)](#)
3. S. Todorova, A. Naydenov, H. Kolev, J. P. Holgado, G. Ivanov, G. Kadinov, A. Caballero.
Mechanism of complete n-hexane oxidation on silica supported cobalt and manganese catalysts.
Applied Catalysis A: General 413-414, 2012, 43-51. [ISSN: 0926-860X](#)
4. T. Tsoncheva, A. Gallo, N. Scotti, M. Dimitrov, R. Delaigle, E. M. Gaigneaux, D. Kovacheva, V. Dal Santo, N. Ravasio.
Optimization of the preparation procedure of cobalt modified silicas as catalysts in methanol decomposition.
Applied Catalysis A: General 417-418, 212, 209-19. [ISSN: 0926-860X](#)
5. A. Gallo, T. Tsoncheva, M. Marelli, M. Mihaylov, M. Dimitrov, V. Dal Santo, K. Hadjiivanov
Size controlled copper nanoparticles hosted in mesoporous silica matrix: Preparation and characterization.
Applied Catalysis B: Environmental 126, 2012, 161-171. [ISSN: 0926-3373](#)
6. S. Stojadinović, N. Radić, R. Vasilić, M. Petković, P. Stefanov, L. Zeković, B. Grbić.
Photocatalytic properties of TiO₂/WO₃ coatings formed by plasma electrolytic oxidation of titanium in 12-tungstosilicic acid,
Applied Catalysis B: Environmental 126, 2012, 334-341. [ISSN: 0926-3373](#)
7. N. Trendafilova, I. Kostova,
Application of density functional approximation for investigation of reactive sites, molecular and electronic structure of coumarins and their lanthanide(III) complexes.
Asian Journal of Chemistry 24(12), 2012, 5447-5449. [ISSN: 0970-7077](#)
8. S. V. Dimitrova, I. K. Mihailova, V. S. Nikolov, D. R. Mehandjiev.
Adsorption capacity of modified metallurgical slag.
Bulgarian Chemical Communications 44, 2012, 30-36. [ISSN: 0861-9808](#)

9. D. Kovacheva, T. Ruskov, P. Krystev, S. Asenov, N. Tanev, I. Mönch, R. Koseva, U. Wolff, T. Gemming, M. Markova-Velichkova, D. Nihtianova, K. Arndt. Synthesis and characterization of magnetic nano-sized Fe₃O₄ and CoFe₂O₄. Bulgarian Chemical Communications 44, 2012, 90-97. [ISSN: 0861-9808](#)
-
10. P. Tzvetkov, D. Kovacheva, D. Nihtianova, N. Velichkova, T. Ruskov. Synthesis and crystal structure of new PbBaFe_{2-x}Mn_xO₅ perovskite-type compounds. Bulgarian Chemical Communications 44, 2012, 137-145. [ISSN: 0861-9808](#)
-
11. S. Dimitrovska-Lazova, D. Kovacheva, P. Tzvetkov. Structural characteristics of GdCo_{1-x}Cr_xO₃ (x = 0, 0.33, 0.5, 0.67, 1) perovskites. Bulgarian Chemical Communications 44, 2012, 47-54. [ISSN: 0861-9808](#)
-
12. S. Dimitrovska-Lazova, D. Kovacheva, S. Aleksovska, M. Marinšek, P. Tzvetkov. Synthesis and structural details of perovskites within the series PrCo_{1-x}Cr_xO₃ (x = 0, 0.33, 0.5, 0.67 and 1). Bulgarian Chemical Communications 44, 2012, 37-46. [ISSN: 0861-9808](#)
-
13. E. H. Ivanova, A. K. Detcheva. Green analytical chemistry and its perspectives in Bulgaria. Bulgarian Chemical Communications 44(1), 2012, 5-10. [ISSN: 0861-9808](#)
-
14. G. Gentscheva, A. Petrov, E. Ivanova, I. Havezov. Flame AAS determination of trace amounts of Cu, Ni, Co, Cd and Pd in waters after preconcentration with 2-nitroso-1-naphthol. Bulgarian Chemical Communications 44(1), 2012, 52-56. [ISSN: 0861-9808](#)
-
15. P. S. Vassileva, D. K. Voykova, Removal of Mn(II), Fe(III) and Cr(III) from aqueous solutions using bulgarian clinoptilolite. Bulgarian Chemical Communications 44(2), 2012, 180-187. [ISSN: 0861-9808](#)
-
16. K. Genov, V. Blaskov, S. Vassilev, I. Boevski, M. Shipochka, I. Stambolova. Some physicochemical properties of silver loaded clinoptilolite from Beli Plast, east Rhodopes by spray pyrolysis method. Bulgarian Chemical Communications 44(2), 2012, 144-147. [ISSN: 0861-9808](#)
-
17. I. Stambolova, V. Blaskov, S. Vassilev, M. Shipochka, A. Loukanov. Effect of substrate type, dopant and thermal treatment on physicochemical properties of TiO₂-SnO₂ sol-gel films. Bulletin of Materials Science 35(4), 2012, 645-649. [ISSN: 0250-4707](#)
-
18. M. Kantcheva, M. Milanova, I. Avramova, S. Mametsheripov. Spectroscopic characterization of gold supported on tungstated zirconia. Catalysis Today 187(1), 2012, 39-47. [ISSN: 0920-5861](#)
-
19. R. H. Georgieva RH, P. S. Vassileva, A. K. Detcheva, D. K. Voykova, T. I. Gerganova, Y. Y. Ivanova. Synthesis, characterization and adsorption properties of nanostructured hybrid materials modified by boron and zirconium. Central European Journal of Chemistry 10(5), 2012, 1484-1494. [ISSN: 1895-1066](#), [ISSN \(electronic\): 1644-3624](#)
-
20. A. Sachse, V. Hulea, K. L. Kostov, N. Marcotte, M. Y. Boltoeva, E. Belamie, B. Alonso, Efficient mesoporous silica-titania catalysts from colloidal self-assembly. Chemical Communications 48, 2012, 10648-10650. [ISSN: 1359-7345](#), [E-ISSN: 1364-548X \(electronic\)](#)
-

21. J. Dostanić, B. Grbić, N. Radić, P. Stefanov, Z. Šaponjić, J. Buha, D. Mijin, Photodegradation of an azo pyridone dye using TiO₂ films prepared by the spray pyrolysis method, *Chemical Engineering Journal*, 180, 2012, 57-65. [ISSN: 1385-8947](#)
-
22. J. Mouhovski, A. Detcheva. Determination of impurities for controllable growth of high quality optical fluorite. *Chemical Papers* 66(3), 2012, 161-170. [ISSN: 0366-6352](#), [E-ISSN: 1336-9075 \(electronic\)](#)
-
23. S. Vassilev, K. Genov, V. Blaskov, M. Shipochka, I. Boevski, I. Stambolova. Preparation of supported copper catalyst by spray pyrolysis of copper acetate on HEU zeolite. *Comptes rendus de l'Academie bulgare des Sciences* 65(1), 2012, 41-48. [ISSN: 1310-1331](#)
-
24. B. D. Andonova-Lilova, R. Alexandrova, D. Rabadjieva, S. Tepavitcharova Application of cultured murine cells for initial evaluation of the biocompatibility of Mg and Zn-modified tri-calcium phosphates. *Comptes rendus de l'Academie bulgare des Sciences* 65(8), 2012, 1099-1104. [ISSN: 1310-1331](#)
-
25. D. D. Radev, V. Tumbalev, D. Kovacheva, D. Mehandjiev, V. Petkova, S. Vladimirova. Influence of mechanical treatment of oxalate precursors on the properties of copper oxide - nickel oxide mixture. *Comptes rendus de l'Academie bulgare des Sciences* 65(10), 2012, 1343-8. [ISSN: 1310-1331](#)
-
26. K. Hadjiivanov, K. Chakarova, N. Drenchev, M. Mihaylov, Characterization of porous materials by FTIR spectroscopy of isotopically labelled probe molecules, *Current Physical Chemistry* 2, 2012, 151-161. [ISSN: 1877-9468](#), [E ISSN: 1877-9476 \(electronic\)](#)
-
27. A. Stoyanova, A. Bachvarova-Nedelcheva, R. Iordanova, N. Ivanova, H. Hitkova, M. Sredkova. Synthesis, photocatalytic and antibacterial properties of nanosized ZnTiO₃ powders obtained by different sol-gel methods. *Digest Journal of Nanomaterials and Biostructures* 7(2), 2012, 777-784. [ISSN: 1842 - 3582](#)
-
28. D. Simeonov, L. Spasov and P. Simeonova. Statistical calibration of model solution of analytes. *Ecological Chemistry and Engineering S* 19(1), 2012, 67-75. [ISSN 1898-6196](#)
-
29. S. Mirhashemihaghighi, B. Leoìn, C. Pérez Vicente, J. L. Tirado, R. Stoyanova, M. Yoncheva, E. Zhecheva, R. Sáez Puche, E. M. Arroyo, J. Romero De Paz. Lithium storage mechanisms and effect of partial cobalt substitution in manganese carbonate electrodes. *Inorganic Chemistry* 51(10), 2012, 5554-5560. [ISSN: 0020-1669](#), [E-ISSN: 1520-510X \(electronic\)](#)
-
30. M. Atanasov, P. Comba, S. Helmle. Cyanide-bridged Fe III-Cu II complexes: Jahn-teller isomerism and its influence on the magnetic properties. *Inorganic Chemistry* 51(17), 2012, 9357-9368. [ISSN: 0020-1669](#), [E-ISSN: 1520-510X \(electronic\)](#)
-

31. M. Atanasov, P. Comba, S. Helmle, D. Müller, F. Neese, Zero-field splitting in a series of structurally related mononuclear ni II-bispidine complexes. *Inorganic Chemistry* 51(22), 2012, 12324-12335. [ISSN: 0020-1669](#), [ISSN: 1520-510X \(electronic\)](#)
-
32. K. Nikolova, I. Panchev, S. Sainov, G. Gentscheva, E. Ivanova. Selected physical properties of lime bee honey in order to discriminate between pure honey and honey adulterated with glucose. *International Journal of Food Properties* 15(6), 2012, 1358-1368. [ISSN: 1094-2912](#), [E-ISSN: 1532-2386 \(electronic\)](#)
-
33. D. Radev. Nickel-Containing Alloys for Medical Application Obtained by Methods of Mechanochemistry and Powder Metallurgy, *ISRN Metallurgy 2012 (2012)*, Article ID 464089. [E-ISSN: 2090-8717 \(electronic\)](#)
-
34. Y. Dimitriev, M. Gancheva, R. Iordanova. Effects of the mechanical activation of zinc carbonate hydroxide on the formation and properties of zinc oxides. *Journal of Alloys Compounds* 519, 2012, 161-166 [ISSN: 0925-8388](#)
-
35. D. L. Tsalev, E. Ivanova. Bulgarian analytical atomic spectroscopists in the new millennium - integrated in the european research area. *Journal of Analytical Atomic Spectrometry* 27(10), 2012, 1645-1657. [ISSN: 267-9477](#), [E-ISSN: 364-5544 \(electronic\)](#)
-
36. I. Uzunov, S. Uzunova, D. Angelova, A. Gigova. Effects of the pyrolysis process on the oil sorption capacity of rice husk. *Journal of Analytical and Applied Pyrolysis* 98, 2012, 166-176. [ISSN: 0165-2370](#)
-
37. C. Christov. Study of bromide salts solubility in the (m 1KBr + m 2CaBr 2)(aq) system at T = 323.15 K. thermodynamic model of solution behaviour and (solid + liquid) equilibria in the ternaries (m 1KBr + m 2CaBr2)(aq), and (m 1MgBr2 + m 2CaBr2) (aq), and in the quinary (Na + K + Mg + Ca + Br + H2O). *Journal of Chemical Thermodynamics* 55, 2012, 7-22. [ISSN: 0021-9614](#)
-
38. I. Spassova, T. Tsontcheva, N. Velichkova, M. Khristova, D. Nihtianova. Catalytic reduction of NO with decomposed methanol on alumina-supported Mn-Ce catalysts *Journal of Colloids and Interface Science* 374(1), 2012, 267-277 [ISSN: 0021-9797](#)
-
39. P. Stefchev, Z. Alexieva, R. Kirilov, C. Dikov, P. Stefanov. Two-step electrodeposition method for a highly efficient solar absorbing coating. *Journal of Environmental Protection and Ecology* 13(1), 2012, 173-177 [ISSN: 1311-5065](#)
-
40. M. Yoncheva, R. Stoyanova, E. Zhecheva, E. Kuzmanova, M. Sendova-Vassileva, D. Nihtianova, D. Carlier, M. Guignard, C. Delmas. Structure and Reversible Lithium Intercalation in a New P'3-phase: Na2/3Mn1-yFeyO2 (y=0, 1/3, 2/3). *Journal of Materials Chemistry* 22, 2012, 23418-23427 (2012). [ISSN: 0959-9428](#). [E-ISSN: 1364-5501 \(electronic\)](#)
-
41. I. Georgieva, N. Danchova, S. Gutzov, N. Trendafilova. DFT modeling, UV-vis and IR spectroscopic study of acetylaceton-modified zirconia sol-gel materials.

- Journal of Molecular Modeling 18(6), 2012, 2409-2422.**
ISSN: 1610-2940, E-ISSN: 0948-5023 (electronic)
-
42. S. Tepavitcharova, D. Rabadjieva, D. Havlíček, I. Němec, P. Vojtíšek, J. Plocek, Z. Koleva.
Crystallization and characterization of the compounds Gly•MSO₄•mH₂O (M = Mg²⁺, Mn²⁺, Fe²⁺, Co²⁺, Ni²⁺, Zn²⁺; M = 0, 3, 5, 6).
Journal of Molecular Structure 1018, 2012, 113-21. **ISSN: 0022-2860**
-
43. M. Wildner, V. Karadjova, D. Marinova, M. Georgiev, D. Stoilova.
Crystal and molecular structure of ammonium beryllium sulfate dihydrate, (NH₄)₂Be(SO₄)₂•2H₂O.
Journal of Molecular Structure 1022, 2012, 117-124. **ISSN: 0022-2860**
-
44. H. Hitkova, A. Stoyanova, N. Ivanova, M. Sredkova, R. Iordanova, A. Bachvarova-Nedelcheva.
"Synthesis and bactericidal effect of TiO₂ on selected pathogenic bacteria.
Journal of Optoelectronic and Biomedical Materials 4 (1), 2012, 9-17.
ISSN: 2066-0049
-
45. N. Mintcheva, I. Georgieva, T. Mihaylov, N. Trendafilova, M. Tanabe, K. Osakada.
NMR, IR and DFT studies of phenylplatinum complexes with O-monodentate coordinated silsesquioxanate and auxiliary phosphine ligands.
Journal of Organometallic Chemistry 697(1), 2012, 23-32. **ISSN: 0022-328X**
-
46. I. Stambolova, M. Shipochka, V. Blaskov, A. Loukanov, S. Vassilev S.
Sprayed nanostructured TiO₂ films for efficient photocatalytic degradation of textile azo dye.
Journal of Photochemistry and Photobiology B: Biology 117, 2012, 19-26.
ISSN: 1011-1344
-
47. E. L. Uzunova, H. Mikosch.
Electronic structure and reactivity of cobalt oxide dimers and their hexacarbonyl complexes: A density functional study.
Journal of Physical Chemistry A 116(12), 2012, 3295-303.
ISSN: 1089-5639, E-ISSN: 1520-5215 (electronic)
-
48. V. Zdravkova, M. Mihaylov, K. Hadjiivanov.
Coordination of two N₂ molecules to one ni + site in ni-ZSM-5: An FTIR spectroscopy study.
Journal of Physical Chemistry C 116(23), 2012, 12706-12711. **ISSN: 1932-7447**
-
49. K. Chakarova, N. Drenchev, K. Hadjiivanov.
FTIR evidence of different bonding of methane to OH groups on H-ZSM-5, HY, and SiO₂.
Journal of Physical Chemistry C 116(32), 2012, 17101-17109. **ISSN: 1932-7447**
-
50. H. A. Aleksandrov, V. R. Zdravkova, M. Y. Mihaylov, P. S. Petkov, G. N. Vayssilov, K. I. Hadjiivanov.
Precise identification of the infrared bands of the polycarbonyl complexes on ni-MOR zeolite by ¹²C¹⁶O - ¹³C¹⁸O coadsorption and computational modeling.
Journal of Physical Chemistry C 116(43), 2012, 22823-22831. **ISSN: 1932-7447**
-
51. V. Vulchev, L. Vassilev, S. Harizanova, M. Khristov, E. Zhecheva, R. Stoyanova.
Improving of the thermoelectric efficiency of LaCoO₃ by double substitution with nickel and iron.
Journal of Physical Chemistry C 116(25), 2012, 13507-13515. **ISSN: 1932-7447**
-
52. J. R. González, R. Alcántara, F. Nacimiento, G. F. Ortiz, J. L. Tirado, E. Zhecheva, R. Stoyanova.
Long-length titania nanotubes obtained by high-voltage anodization and high-

- intensity ultrasonication for superior capacity electrode.
Journal of Physical Chemistry C 16(38), 2012, 20182-20190. **ISSN: 1932-7447**
-
53. C. Ghelev, T. Koutzarova, S. Kolev, I. Nedkov, K. Krezhov, D. Kovacheva, B. Blagoev, B. Vertruyen, C. Henrist, R. Cloots, A. Zaleski, V. Nizhankovskii
Magnetic properties of nanosized MgFe₂O₄ powders prepared by auto-combustion.
Journal of Physics: Conference Series 356(1), 2012, Article number 012048.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic)
-
54. V. Georgieva, N. Donkov, P. Stefanov, M. Sendova-Vassileva, A. Grechnikov, V. Gadjanova.
NO₂ sensing properties of amorphous silicon films.
Journal of Physics: Conference Series 356(1). 2012, Article number 012027.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic)
-
55. G. Atanasova, A. O. Dikovska, M. Stankova, P. Stefanov, P. A. Atanasov. XPS study of ZnO nanostructures prepared by laser ablation. *Journal of Physics: Conference Series* 356(1), 2012, Article number 012036.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic)
-
56. O. Dimitrov, D. Nesheva, Z. Levi, I. Miloushev, T. Tenev, V. Blaskov and I. Stambolova.
Ultrasonically sprayed ZnO films: optical, electrical and sensing properties,
Journal of Physics: Conference Series 398, 2012, Article number 012022
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic)
-
57. V. Blaskov, M. Shipochka, I. Stambolova, S. Vassilev, A. Eliyas, P. Stefanov and A. Loukanov.
Influence of titanium precursor on the photocatalytic properties of TiO₂ sprayed films under visible light,
Journal of Physics: Conference Series 398, 2012, Article number 012021
ISSN 1742-6588, E-ISSN: 1742-6596 (electronic)
-
58. S. Dimitrovska-Lazova, V. Mireski, D. Kovacheva, S. Aleksovska.
Solution combustion synthesis of YCoO₃ and investigation of its catalytic properties by cyclic voltammetry.
Journal of Solid State Electrochemistry 16(1), 2012, 219-225.
ISSN: 1432-8488, E-ISSN: 1433-0768 (electronic)
-
59. T. Koutzarova Kolev S, Nedkov I, Krezhov K, Kovacheva D, Blagoev B, Ghelev C, Henrist C, Cloots R, Zaleski A.
Magnetic properties of nanosized Ba₂Mg₂Fe₁₂O₂₂ powders obtained by auto-combustion.
Journal of Superconductivity and Novel Magnetism 25 (8), 2012, 2631-2635
ISSN: 1557-1939, E-ISSN: 1557-1947 (electronic)
-
60. S. Simeonov, S. Kozhukharov, M. Machkova, N. Saliyski, V. Kozhukharov.
Innovative methods and technologies for elaboration of SOFC ceramic material (Review),
Journal of the University of Chemical Technology and Metallurgy, 47, 2012, 485-492. **ISSN: 1311-7629**
-
61. P. Tzvetkova, R. Nickolov.
Modified and Unmodified Silica Gel Used for Heavy Metal Ions Removal from Aqueous Solutions,
Journal of the University of Chemical Technology and Metallurgy, 47, 2012, 498-504. **ISSN: 1311-7629**
-
62. Y. Dimitriev, Y. Ivanova.
Aleey-El-Deen Mohamed Tawfiq Aly, M. Gancheva, R. Iordanova, Formation of

- nanometer Ag and Cu particles in the float glasses after heat-treatment, *Journal of the University of Chemical Technology and Metallurgy*, 47 (4), 2012, 415-420. [ISSN: 1311-7629](#)
-
63. D. Angelova, S. Uzunova, I. Uzunov, B. Anchev, Dependence between oil sorption capacity of pyrolyzed rice husks and the composition and amount of fluids dispersed on their surface, *Journal of the University of Chemical Technology and Metallurgy* 47(2), 2012, 147-154. [ISSN:1311-7629](#)
-
64. I. Koseva, A. Yordanova, P. Tzvetkov, V. Nikolov, D. Nihtianova. Nanosized pure and Cr doped $\text{Al}_2\text{-xIn}_x(\text{WO}_4)_3$ solid solutions. *Materials Chemistry and Physics* 132(2-3), 2012, 808-814. [ISSN: 0254-0584](#)
-
65. M. Najdoski, V. Koleva, S. Demiri. Chemical bath deposition and characterization of electrochromic thin films of sodium vanadium bronzes. *Materials Research Bulletin* 47(3), 2012, 737-743. [ISSN: 0025-5408](#)
-
66. A. Yordanova, I. Koseva, N. Velichkova, D. Kovacheva, D. Rabadjieva, V. Nikolov. Nanosized pure and Cr doped $\text{Al}_2\text{-xSc}_x(\text{WO}_4)_3$ solid solutions. *Materials Research Bulletin* 47(6), 2012, 1544-1549. [ISSN: 0025-5408](#)
-
67. M. Najdoski, V. Koleva, S. Demiri, S. Stojkovikj. A simple chemical method for deposition of electrochromic potassium manganese oxide hydrate thin films. *Materials Research Bulletin* 47(9), 2012, 2239-2244. [ISSN: 0025-5408](#)
-
68. I. Koseva, A. Yordanova, D. Rabadjieva, P. Tzvetkov, V. Nikolov. Phase equilibria in the system $\text{NaAl}(\text{WO}_4)_2 - \text{NaCr}(\text{WO}_4)_2$. *Materials Research Bulletin* 47(11), 2012, 3580-3585. [ISSN: 0025-5408](#)
-
69. I. Stambolova, V. Blaskov, M. Shipochka, S. Vassilev, V. Petkova, A. Loukanov. Simple way for preparation of ZnO films by surfactant mediated spray pyrolysis. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology* 177(13), 2012, 1029-1037. [ISSN: 0921-5107](#)
-
70. M. Maczka, V. Nikolov, K. Hermanowicz, A. Yordanova, M. Kurnatowska, J. Hanuza. Optical and phonon properties of nanocrystalline $\text{Al}_2(\text{WO}_4)_3$ doped with chromium(III) prepared by co-precipitation method. *Optical Materials* 34(7), 2012, 1048-10553. [ISSN: 0925-3467](#)
-
71. A. Bachvarova-Nedelcheva, R. Iordanova, K.L. Kostov, St. Yordanov, V. Ganev, Structure and properties of a non-traditional glass containing TeO_2 , SeO_2 and MoO_3 . *Optical Materials* 34, 2012, 1781-1787. [ISSN: 0925-3467](#)
-
72. Z. Zakhariev, I. Stambolova, M. Marinov, C. Perchemliev. Borozar-PII boronaluminising paste for steels treatment. *Oxidation Communications* 35(2), 2012, 491-496. [ISSN: 0209-4541](#)
-
73. Z. Zakhariev, I. Stambolova, M. Marinov. Oxidation stability of layers obtained by boronaluminising of steels. *Oxidation Communications* 35(2), 2012, 497-502. [ISSN: 0209-4541](#)
-
74. O. Lagunov, K. Chakarova, K. Hadjiivanov, Silver-catalyzed low-temperature CO isotopic scrambling reaction: $12\text{C}16\text{O} + 13\text{C}18\text{O} \rightarrow 12\text{C}18\text{O} + 13\text{C}16\text{O}$. *Physical Chemistry Chemical Physics* 14(7), 2012, 2178-2182. [ISSN: 1463-9076](#), [E ISSN: 1463-9084 \(electronic\)](#)

-
75. Y. Dimitriev, R. Iordanova, M. Milanova, A. Bachvarova-Nedelcheva, M. Hassan, M. Abdallah,
Crystallization of ZnO from supercooled melts and glasses.
Physics and Chemistry of Glasses: European Journal of Glass Science and Technology B 53 (2) (2012) 254-263. [ISSN: 1753-3562](#)
-
76. E. Kashchieva, I. Petrov, L. Aleksandrov, R. Iordanova, Y. Dimitriev,
"Microstructure of multicomponent borosilicate glasses containing MoO₃.
Physics and Chemistry of Glasses, European Journal of Glass Science and Technology B 53 (6), 2012, 264–270. [ISSN: 1753-3562](#)
-
77. A. O. Dikovska, N. N. Nedyalkov, S. E. Imamova, G. B. Atanasova, P. A. Atanasov.
Au-coated ZnO nanostructures for surface enhanced raman spectroscopy applications.
Quantum Electronics 42(3), 2012, 258-261.
[ISSN 1063-7818, E-ISSN 1468-4799 \(electronic\)](#)
-
78. M. Gabrovska, R. Edreva-Kardjieva, D. Crişan, P. Tzvetkov, M. Shopska, I. Shtereva.
Ni-Al layered double hydroxides as catalyst precursors for CO₂ removal by methanation,
Reaction Kinetics, Mechanisms and Catalysis 105(1), 2012, 79-99.
[ISSN: 1878-5190, E-ISSN:1878-5204 \(electronic\)](#)
-
79. V. Antonov, I. Georgieva, N. Trendafilova, D. Kovacheva, K. Krezhov.
First principles study of structure and properties of La- and Mn-modified BiFeO₃.
Solid State Sciences 14(7), 2012, 782-788. [ISSN: 1293-2558](#)
-
80. M. Atanasov, D. Ganyushin, K. Sivalingam, F. Neese.
A modern first-principles view on ligand field theory through the eyes of correlated multireference wavefunctions.
Structure and Bonding 143, 2012, 149-220. [ISSN: 0081-5993](#)
-
81. N. Kaneva, I. Stambolova, V. Blaskov, Y. Dimitriev, A. Bojinova, C. Dushkin.
A comparative study on the photocatalytic efficiency of ZnO thin films prepared by spray pyrolysis and sol-gel method,
Surface and Coating Technology 207, 2012, 5-10. [ISSN: 0257-8972](#)
-
82. D. Guergova, E. Stoyanova, D. Stoychev, I. Avramova, P. Stefanov. Investigation of the inhibiting effect of cerium ions on the corrosion behavior of OC404 stainless steel in sulfuric acid medium.
Open Chemical Physics Journal 4, 2012, 8-17. [ISSN: 1874-4125](#)
-
83. V. Koleva, V. Stefov, M. Najdoski, A. Cahil.
Vibrational spectra of cobalt dihydrogen phosphate dihydrate, Co(H₂PO₄)₂·2H₂O.
Vibrational Spectroscopy 62, 2012, 229-237. [ISSN: 0924-2031](#)
-
84. V. Koleva, V. Petkova,
IR spectroscopic study of high energy activated tunisian phosphorite.
Vibrational Spectroscopy 58, 2012, 125-132. [ISSN: 0924-2031](#)

1.2. под печат

1. R. Ilieva, E. Dyulgerova; O. Petrov; R. Aleksandrova; R. Titorenkova.
Effects of high energy dry milling on biphasic calcium phosphates.
Advances in Applied Ceramics. [ISSN: 1743-6753, E-ISSN 1753-6761 \(electronic\)](#)
-

2. T. Tsoncheva, G. Issa, T. Blasco, M. Dimitrov, M. Popova, S. Hernández, D. Kovacheva, G. Atanasova, J. M. López Nieto.
Catalytic VOCs elimination over copper and cerium oxide modified mesoporous SBA-15 silica.
Applied Catalysis A: General. [ISSN: 0926-860X](#)

3. E. Grigorova, M. Khristov, P. Peshev, D. Nihtianova, N. Velichkova and G. Atanasova.
Hydrogen sorption properties of a MgH₂ – V₂O₅ composite prepared by ball milling,
Bulgarian Chemical Communications. [ISSN: 0861-9808](#)

4. K. Nikolova, G. Gentscheva, A. Panchev, E. Ivanova,
Survey of the mineral content and some physico-chemical parameters of Bulgarian bee honeys,
Bulgarian Chemical Communications. [ISSN: 0861-9808](#)

5. P. Vassileva, A. Detcheva, I. Uzunov, S. Uzunova.
Removal of some metal ions from aqueous solutions using pyrolyzed rice husks: adsorption kinetics and equilibria.
Chemical Engineering Communications.
[ISSN: 0098-6445](#), [E-ISSN: 1563-5201 \(electronic\)](#)

6. P. S. Vassileva, M. S. Apostolova, A. K. Detcheva, E. Ivanova.
Bulgarian natural diatomites – modification and characterization,
Chemical Papers. [ISSN: 0366-6352](#), [E-ISSN: 1336-9075 \(electronic\)](#)

7. J. M. Zadrozny, M. Atanasov, A. M. Bryan, C.-Y. Lin, B. D. Reken, P. P. Power, Frank Neese, Jeffrey R. Long,
Slow magnetization dynamics in a series of two-coordinate iron(II) complexes.
Chemical Science. [ISSN: 2041-6520](#), [E-ISSN: 2041-6539 \(electronic\)](#)

8. M. Atanasov, J. M. Zadrozny, J. R. Long, F. Neese.
A theoretical analysis of chemical bonding, vibronic coupling, and magnetic anisotropy in linear iron(II) complexes with single-molecule magnet behavior.
Chemical Science. [ISSN: 2041-6520](#), [E-ISSN: 2041-6539 \(electronic\)](#)

9. M. Atanasov, P. Surawatanawong, K. Wieghardt, F. Neese.
A theoretical study of zero-field splitting in Fe(IV)S₆ (S = 1) and Fe(III)S₆ (S = 1/2) core complexes, [Fe^{IV}(Et₂dtc)_{3-n}(mnt)_n]⁽ⁿ⁻¹⁾⁻ and [Fe^{III}(Et₂dtc)_{3-n}(mnt)_n]ⁿ⁻ (n = 0, 1, 2, 3): The origin of the magnetic anisotropy.
Coordination Chemistry Review.
[ISSN: 0009-2665](#), [E-ISSN: 1520-6890 \(electronic\)](#)

10. R. Georgieva, A. Detcheva, M. Karadjov, J. Jordanov, E. Ivanova.
Total reflection X-ray fluorescence analysis of the microtrace content in Bulgarian bottled mineral waters of low and high mineralization.
International Journal of Environmental Analytical Chemistry. [ISSN: 0306-7319](#)

11. E. L. Uzunova, H. Mikosch, G. St. Nikolov.
Density functional study of copper-exchanged zeolites and related microporous materials: Adsorption of nitrosyls.
International Journal of Quantum Chemistry.
[ISSN: 0020-7608](#), [E-ISSN: 1097-461X \(electronic\)](#)

12. S. Stojkovikj, M. Najdoski, V. Koleva, S. Demiri,
“Preparation of electrochromic thin films by transformation of manganese (II) carbonate”.
Journal of Physics and Chemistry of Solids. [ISSN: 0022-3697](#).

13. M. Mladenov, K. Alexandrova, N. V. Petrov, B. Tsyntsarski, D. Kovacheva, N. Saliyski, R. Raicheff.
Synthesis and electrochemical properties of activated carbons and Li₄Ti₅O₁₂ as electrode materials for supercapacitors.
Journal of Solid State Electrochemistry.
ISSN: 1432-8488, E-ISSN: 1433-0768 (electronic)
-
14. R. Nickolov, I. Spassova, N. Velichkova, M. Khristova, V. Dimitrova, P. Tzvetkova.
Hybrid Materials as Catalyst Support in NO Reduction with CO.
Microporous and Mesoporous Materials ISSN: 1387-1811
-
15. M. Maczka, K. Hermanowicz, L. Kepiński, J. Hanuza, A. Yordanova, I. Koseva.
Raman spectroscopy and optical properties of nanocrystalline NaAl(WO₄)₂:Cr³⁺ powders prepared by co-precipitation/calcination method.
Optical Materials. ISSN: 0925-3467
-
16. D. Stoyanova, P. Georgieva, N. Kasabova.
Pd-containing catalysts promoted by NiO designed for reduction of NO with CO at stoichiometric NO/CO ratio.
Reaction Kinetics Mechanisms and Catalysis
ISSN: 1878-5190, E-ISSN: 1878-5204 (electronic)
-
17. St. Tepavitcharova, A. Kovacheva, Chr. Balarew.
Crystallization and thermal behavior of 2MX.CuX₂.2H₂O (M⁺ = K, NH₄, Rb; X⁻ = Cl, Br).
Solid State Phenomena. ISSN: 1012-0394
-
18. V. Koleva, V. Stefov.
Phosphate ion vibrations in dihydrogen phosphate salts of the type M(H₂PO₄)₂·2H₂O (M = Mg, Mn, Co, Ni, Zn, Cd): Spectra–structure correlations.
Vibrational Spectroscopy. ISSN: 0924-2031
-

2. Списък на публикациите, които са включени в списания с импакт фактор IF или импакт ранг SJR

2.1. Излезли от печат

1. O. Bozhkov, C. Tzvetkova, L. Borisova, B. Bryskin.
Phytomining: New method for rhenium.
Advanced Materials and Processes 170(5), 2012, 34-37.
ISSN: 0882-7958 (IF: 0.066)
-
2. A. Detcheva, J. Hassler, R. Georgieva.
Feasibility of ETV-ICP-OES for characterization of archaeological glasses.
Analytical Letters 45(5-6), 2012, 603-612.
ISSN: 0003-2719, E-ISSN: 1532-236X (electronic) (IF: 1.016)
-
3. S. Todorova, A. Naydenov, H. Kolev, J. P. Holgado, G. Ivanov, G. Kadinov, A. Caballero.
Mechanism of complete n-hexane oxidation on silica supported cobalt and manganese catalysts.
Applied Catalysis A: General 413-414, 2012, 43-51. ISSN: 0926-860X (IF: 3.903)
-

4. T. Tsoncheva, A. Gallo, N. Scotti, M. Dimitrov, R. Delaigle, E. M. Gaigneaux, D. Kovacheva, V. Dal Santo, N. Ravasio.
Optimization of the preparation procedure of cobalt modified silicas as catalysts in methanol decomposition.
Applied Catalysis A: General 417-418, 212, 209-219. ISSN: 0926-860X (IF: 3.903)

5. A. Gallo, T. Tsoncheva, M. Marelli, M. Mihaylov, M. Dimitrov, V. Dal Santo, K. Hadjiivanov
Size controlled copper nanoparticles hosted in mesoporous silica matrix: Preparation and characterization.
Applied Catalysis B: Environmental 126, 2012, 161-171.
ISSN: 0926-3373 (IF: 5.625)

6. S. Stojadinović, N. Radić, R. Vasilić, M. Petković, P. Stefanov, L. Zeković, B. Grbić.
Photocatalytic properties of TiO₂/WO₃ coatings formed by plasma electrolytic oxidation of titanium in 12-tungstosilicic acid,
Applied Catalysis B: Environmental 126, 2012, 334-341.
ISSN: 0926-3373 (IF: 5.625)

7. N. Trendafilova, I. Kostova,
Application of density functional approximation for investigation of reactive sites, molecular and electronic structure of coumarins and their lanthanide(III) complexes.
Asian Journal of Chemistry 24(12), 2012, 5447-5449. ISSN: 0970-7077 (IF: 0.266)

8. S. V. Dimitrova, I. K. Mihailova, V. S. Nikolov, D. R. Mehandjiev.
Adsorption capacity of modified metallurgical slag.
Bulgarian Chemical Communications 44, 2012, 30-36.
ISSN: 0861-9808 (IF: 0.283)

9. D. Kovacheva, T. Ruskov, P. Krystev, S. Asenov, N. Tanev, I. Mönch, R. Koseva, U. Wolff, T. Gemming, M. Markova-Velichkova, D. Nihtianova, K. Arndt.
Synthesis and characterization of magnetic nano-sized Fe₃O₄ and CoFe₂O₄.
Bulgarian Chemical Communications 44, 2012, 90-97.
ISSN: 0861-9808 (IF: 0.283)

10. P. Tzvetkov, D. Kovacheva, D. Nihtianova, N. Velichkova, T. Ruskov.
Synthesis and crystal structure of new PbBaFe_{2-x}MnxO₅ perovskite-type compounds.
Bulgarian Chemical Communications 44, 2012, 137-145.
ISSN: 0861-9808 (IF: 0.283)

11. S. Dimitrovska-Lazova, D. Kovacheva, P. Tzvetkov.
Structural characteristics of GdCo_{1-x}Cr_xO₃ (x = 0, 0.33, 0.5, 0.67, 1) perovskites.
Bulgarian Chemical Communications 44, 2012, 47-54.
ISSN: 0861-9808 (IF: 0.283)

12. S. Dimitrovska-Lazova, D. Kovacheva, S. Aleksovska, M. Marinšek, P. Tzvetkov.
Synthesis and structural details of perovskites within the series PrCo_{1-x}Cr_xO₃ (x = 0, 0.33, 0.5, 0.67 and 1).
Bulgarian Chemical Communications 44, 2012, 37-46.
ISSN: 0861-9808 (IF: 0.283)

13. E. H. Ivanova, A. K. Detcheva.
Green analytical chemistry and its perspectives in Bulgaria.
Bulgarian Chemical Communications 44(1), 2012, 5-10.
ISSN: 0861-9808 (IF: 0.283).

14. G. Gentscheva, A. Petrov, E. Ivanova, I. Havezov.
Flame AAS determination of trace amounts of Cu, Ni, Co, Cd and Pd in waters after preconcentration with 2-nitroso-1-naphthol.
Bulgarian Chemical Communications 44(1), 2012, 52-56.
[ISSN: 0861-9808 \(IF: 0.283\)](#)
-
15. P. S. Vassileva, D. K. Voykova,
Removal of Mn(II), Fe(III) and Cr(III) from aqueous solutions using bulgarian clinoptilolite.
Bulgarian Chemical Communications 44(2), 2012, 180-187.
[ISSN: 0861-9808 \(IF: 0.283\)](#)
-
16. K. Genov, V. Blaskov, S. Vassilev, I. Boevski, M. Shipochka, I. Stambolova. Some physicochemical properties of silver loaded clinoptilolite from Beli Plast, east Rhodopes by spray pyrolysis method.
Bulgarian Chemical Communications 44(2), 2012, 144-147.
[ISSN: 0861-9808 \(IF: 0.283\)](#)
-
17. I. Stambolova, V. Blaskov, S. Vassilev, M. Shipochka, A. Loukanov.
Effect of substrate type, dopant and thermal treatment on physicochemical properties of TiO₂-SnO₂ sol-gel films.
Bulletin of Materials Science 35(4), 2012, 645-649.
[ISSN: 0250-4707 \(IF: 0.880\)](#)
-
18. M. Kantcheva, M. Milanova, I. Avramova, S. Mametsheripov.
Spectroscopic characterization of gold supported on tungstated zirconia.
Catalysis Today 187(1), 2012, 39-47.
[ISSN: 0920-5861 \(IF: 3.407\)](#)
-
19. R. H. Georgieva RH, P. S. Vassileva, A. K. Detcheva, D. K. Voykova, T. I. Gerganova, Y. Y. Ivanova.
Synthesis, characterization and adsorption properties of nanostructured hybrid materials modified by boron and zirconium.
Central European Journal of Chemistry 10(5), 2012, 1484-1494.
[ISSN: 1895-1066, ISSN \(electronic\): 1644-3624 \(IF: 1.073\)](#)
-
20. A. Sachse, V. Hulea, K. L. Kostov, N. Marcotte, M. Y. Boltoeva, E. Belamie, B. Alonso,
Efficient mesoporous silica-titania catalysts from colloidal self-assembly.
Chemical Communications 48, 2012, 10648-10650.
[ISSN: 1359-7345, E-ISSN: 1364-548X \(electronic\) \(IF: 6.169\)](#)
-
21. J. Dostanić, B. Grbić, N. Radić, P. Stefanov, Z. Šaponjić, J. Buha, D. Mijin,
Photodegradation of an azo pyridone dye using TiO₂ films prepared by the spray pyrolysis method,
Chemical Engineering Journal, 180, 2012, 57-65.
[ISSN: 1385-8947 \(IF: 3.461\)](#)
-
22. J. Mouhovski, A. Detcheva.
Determination of impurities for controllable growth of high quality optical fluorite.
Chemical Papers 66(3), 2012, 161-170.
[ISSN: 0366-6352, E-ISSN: 1336-9075 \(electronic\) \(IF: 1.096\)](#)
-
23. S. Vassilev, K. Genov, V. Blaskov, M. Shipochka, I. Boevski, I. Stambolova.
Preparation of supported copper catalyst by spray pyrolysis of copper acetate on HEU zeolite.
Comptes rendus de l'Academie bulgare des Sciences 65(1), 2012, 41-48.
[ISSN: 1310-1331 \(IF: 0.210\)](#)
-

24. B. D. Andonova-Lilova, R. Alexandrova, D. Rabadjieva, S. Tepavitcharova
Application of cultured murine cells for initial evaluation of the biocompatibility of Mg and Zn-modified tri-calcium phosphates.
Comptes rendus de l'Academie bulgare des Sciences 65(8), 2012, 1099-1104.
[ISSN: 1310-1331 \(IF: 0.210\)](#)
-
25. D. D. Radev, V. Tumbalev, D. Kovacheva, D. Mehandjiev, V. Petkova, S. Vladimirova.
Influence of mechanical treatment of oxalate precursors on the properties of copper oxide - nickel oxide mixture.
Comptes rendus de l'Academie bulgare des Sciences 65(10), 2012, 1343-8.
[ISSN: 1310-1331 \(IF: 0.210\)](#)
-
26. A. Stoyanova, A. Bachvarova-Nedelcheva, R. Iordanova, N. Ivanova, H. Hitkova, M. Sredkova.
Synthesis, photocatalytic and antibacterial properties of nanosized ZnTiO₃ powders obtained by different sol-gel methods.
Digest Journal of Nanomaterials and Biostructures 7(2), 2012, 777-784.
[ISSN: 1842 - 3582 \(IF: 1.20\)](#)
-
27. D. Simeonov, L. Spasov and P. Simeonova.
Statistical calibration of model solution of analytes.
Ecological Chemistry and Engineering S 19(1), 2012, 67-75.
[ISSN 1898-6196 \(IF: 0.423\)](#)
-
28. S. Mirhashemihaghighi, B. Leoìn, C. Pérez Vicente, J. L. Tirado, R. Stoyanova, M. Yoncheva, E. Zhecheva, R. Sáez Puche, E. M. Arroyo, J. Romero De Paz.
Lithium storage mechanisms and effect of partial cobalt substitution in manganese carbonate electrodes.
Inorganic Chemistry 51(10), 2012, 5554-5560.
[ISSN: 0020-1669, E-ISSN: 1520-510X \(electronic\) \(IF: 4.601\)](#)
-
29. M. Atanasov, P. Comba, S. Helmle.
Cyanide-bridged Fe III-Cu II complexes: Jahn-teller isomerism and its influence on the magnetic properties.
Inorganic Chemistry 51(17), 2012, 9357-9368.
[ISSN: 0020-1669, E-ISSN: 1520-510X \(electronic\) \(IF: 4.601\)](#)
-
30. M. Atanasov, P. Comba, S. Helmle, D. Müller, F. Neese,
Zero-field splitting in a series of structurally related mononuclear Ni II-bispidine complexes.
Inorganic Chemistry 51(22), 2012, 12324-12335.
[ISSN: 0020-1669, ISSN: 1520-510X \(electronic\) \(IF: 4.601\)](#)
-
31. K. Nikolova, I. Panchev, S. Sainov, G. Gentscheva, E. Ivanova.
Selected physical properties of lime bee honey in order to discriminate between pure honey and honey adulterated with glucose.
International Journal of Food Properties 15(6), 2012, 1358-1368.
[ISSN: 1094-2912, E-ISSN: 1532-2386 \(electronic\) \(IF: 0.668\)](#)
-
32. Y. Dimitriev, M. Gancheva, R. Iordanova.
Effects of the mechanical activation of zinc carbonate hydroxide on the formation and properties of zinc oxides.
Journal of Alloys Compounds 519, 2012, 161-166 [ISSN: 0925-8388 \(IF: 2.289\)](#)
-
33. D. L. Tsalev, E. Ivanova.
Bulgarian analytical atomic spectroscopists in the new millennium - integrated in the European research area.
Journal of Analytical Atomic Spectrometry 27(10), 2012, 1645-1657.
[ISSN: 267-9477, E-ISSN: 364-5544 \(electronic\) \(IF: 3.22\)](#)
-

34. I. Uzunov, S. Uzunova, D. Angelova, A. Gigova.
Effects of the pyrolysis process on the oil sorption capacity of rice husk.
Journal of Analytical and Applied Pyrolysis 98, 2012, 166-176.
ISSN: 0165-2370 (IF: 2.487)
-
35. C. Christov.
Study of bromide salts solubility in the (m 1KBr + m 2CaBr 2)(aq) system at T = 323.15 K. thermodynamic model of solution behaviour and (solid + liquid) equilibria in the ternaries (m 1KBr + m 2CaBr2)(aq), and (m 1MgBr2 + m 2CaBr2) (aq), and in the quinary (Na + K + Mg + Ca + Br + H2O).
Journal of Chemical Thermodynamics 55, 2012, 7-22.
ISSN: 0021-9614 (IF: 2.422)
-
36. I. Spassova, T. Tsontcheva, N. Velichkova, M. Khristova, D. Nihtianova. Catalytic reduction of NO with decomposed methanol on alumina-supported Mn-Ce catalysts
Journal of Colloids and Interface Science 374(1), 2012, 267-277
ISSN: 0021-9797 (IF: 3.070)
-
37. P. Stefchev, Z. Alexieva, R. Kirilov, C. Dikov, P. Stefanov.
Two-step electrodeposition method for a highly efficient solar absorbing coating.
Journal of Environmental Protection and Ecology 13(1), 2012, 173-177
ISSN: 1311-5065 (IF: 0.102)
-
38. M. Yoncheva, R. Stoyanova, E. Zhecheva, E. Kuzmanova, M. Sendova-Vassileva, D. Nihtianova, D. Carlier, M. Guignard, C. Delmas.
Structure and Reversible Lithium Intercalation in a New P'3-phase: Na2/3Mn1-yFeyO2 (y=0, 1/3, 2/3).
Journal of Materials Chemistry 22, 2012, 23418-23427 (2012).
ISSN: 0959-9428. E-ISSN: 1364-5501 (electronic) (IF: 5.968)
-
39. I. Georgieva, N. Danchova, S. Gutzov, N. Trendafilova.
DFT modeling, UV-vis and IR spectroscopic study of acetylacetone-modified zirconia sol-gel materials.
Journal of Molecular Modeling 18(6), 2012, 2409-2422.
ISSN: 1610-2940, E-ISSN: 0948-5023 (electronic) (IF: 5.968)
-
40. S. Tepavitcharova, D. Rabadjieva, D. Havlíček, I. Němec, P. Vojtíšek, J. Plocek, Z. Koleva.
Crystallization and characterization of the compounds Gly•MSO4•mH2O (M = Mg 2+, Mn2+, Fe2+, Co2+, Ni2+, Zn2+; M = 0, 3, 5, 6).
Journal of Molecular Structure 1018, 2012, 113-21.
ISSN: 0022-2860 (IF: 1.634)
-
41. M. Wildner, V. Karadjova, D. Marinova, M. Georgiev, D. Stoilova.
Crystal and molecular structure of ammonium beryllium sulfate dihydrate, (NH4)2Be(SO4)2•2H2O.
Journal of Molecular Structure 1022, 2012, 117-124.
ISSN: 0022-2860 (IF: 1.634)
-
42. N. Mintcheva, I. Georgieva, T. Mihaylov, N. Trendafilova, M. Tanabe, K. Osakada.
NMR, IR and DFT studies of phenylplatinum complexes with O-monodentate coordinated silsesquioxanate and auxiliary phosphine ligands.
Journal of Organometallic Chemistry 697(1), 2012, 23-32.
ISSN: 0022-328X (IF: 2.384)
-
43. I. Stambolova, M. Shipochka, V. Blaskov, A. Loukanov, S. Vassilev S.
Sprayed nanostructured TiO2 films for efficient photocatalytic degradation of textile azo dye.

Journal of Photochemistry and Photobiology B: Biology 117, 2012, 19-26.
ISSN: 1011-1344 (IF: 2.814)

44. E. L. Uzunova, H. Mikosch.
Electronic structure and reactivity of cobalt oxide dimers and their hexacarbonyl complexes: A density functional study.
Journal of Physical Chemistry A 116(12), 2012, 3295-303.
ISSN: 1089-5639, E-ISSN: 1520-5215 (electronic) (IF: 2.946)
-
45. V. Zdravkova, M. Mihaylov, K. Hadjiivanov.
Coordination of two N₂ molecules to one ni + site in ni-ZSM-5: An FTIR spectroscopy study.
Journal of Physical Chemistry C 116(23), 2012, 12706-12711.
ISSN: 1932-7447 (IF: 4.805)
-
46. K. Chakarova, N. Drenchev, K. Hadjiivanov.
FTIR evidence of different bonding of methane to OH groups on H-ZSM-5, HY, and SiO₂.
Journal of Physical Chemistry C 116(32), 2012, 17101-17109.
ISSN: 1932-7447 (IF: 4.805)
-
47. H. A. Aleksandrov, V. R. Zdravkova, M. Y. Mihaylov, P. S. Petkov, G. N. Vayssilov, K. I. Hadjiivanov.
Precise identification of the infrared bands of the polycarbonyl complexes on ni-MOR zeolite by ¹²C¹⁶O - ¹³C¹⁸O coadsorption and computational modeling.
Journal of Physical Chemistry C 116(43), 2012, 22823-22831.
ISSN: 1932-7447 (IF: 4.805)
-
48. V. Vulchev, L. Vassilev, S. Harizanova, M. Khristov, E. Zhecheva, R. Stoyanova.
Improving of the thermoelectric efficiency of LaCoO₃ by double substitution with nickel and iron.
Journal of Physical Chemistry C 116(25), 2012, 13507-13515.
ISSN: 1932-7447
-
49. J. R. González, R. Alcántara, F. Nacimiento, G. F. Ortiz, J. L. Tirado, E. Zhecheva, R. Stoyanova.
Long-length titania nanotubes obtained by high-voltage anodization and high-intensity ultrasonication for superior capacity electrode.
Journal of Physical Chemistry C 16(38), 2012, 20182-20190.
ISSN: 1932-7447 (IF: 4.805)
-
50. C. Ghelev, T. Koutzarova, S. Kolev, I. Nedkov, K. Krezhov, D. Kovacheva, B. Blagoev, B. Vertruyen, C. Henrist, R. Cloots, A. Zaleski, V. Nizhankovskii
Magnetic properties of nanosized MgFe₂O₄ powders prepared by auto-combustion.
Journal of Physics: Conference Series 356(1), 2012, Article number 012048.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic) (SJR: 0.25)
-
51. V. Georgieva, N. Donkov, P. Stefanov, M. Sendova-Vassileva, A. Grechnikov, V. Gadjanova.
NO₂ sensing properties of amorphous silicon films.
Journal of Physics: Conference Series 356(1). 2012, Article number 012027.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic) (SJR: 0.25)
-
52. G. Atanasova, A. O. Dikovska, M. Stankova, P. Stefanov, P. A. Atanasov. XPS study of ZnO nanostructures prepared by laser ablation. *Journal of Physics: Conference Series* 356(1), 2012, Article number 012036.
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic) (SJR: 0.25)
-
53. O. Dimitrov, D. Nesheva, Z. Levi, I. Miloushev, T. Tenev, V. Blaskov and I. Stambolova.

- Ultrasonically sprayed ZnO films: optical, electrical and sensing properties,**
Journal of Physics: Conference Series 398, 2012, Article number 012022
ISSN: 1742-6588, E-ISSN: 1742-6596 (electronic) (SJR: 0.25)
-
54. V. Blaskov, M. Shipochka, I. Stambolova, S. Vassilev, A. Eliyas, P. Stefanov and A. Loukanov.
Influence of titanium precursor on the photocatalytic properties of TiO₂ sprayed films under visible light,
Journal of Physics: Conference Series 398, 2012, Article number 012021
ISSN 1742-6588, E-ISSN: 1742-6596 (electronic) (SJR: 0.25)
-
55. S. Dimitrovska-Lazova, V. Mireski, D. Kovacheva, S. Aleksovska.
Solution combustion synthesis of YCoO₃ and investigation of its catalytic properties by cyclic voltammetry.
Journal of Solid State Electrochemistry 16(1), 2012, 219-225.
ISSN: 1432-8488, E-ISSN: 1433-0768 (electronic) (IF: 2.131)
-
56. T. Koutzarova Kolev S, Nedkov I, Krezhov K, Kovacheva D, Blagoev B, Ghelev C, Henrist C, Cloots R, Zaleski A.
Magnetic properties of nanosized Ba₂Mg₂Fe₁₂O₂₂ powders obtained by auto-combustion.
Journal of Superconductivity and Novel Magnetism 25 (8), 2012, 2631-2635
ISSN: 1557-1939, E-ISSN: 1557-1947 (electronic) (IF: 0.65)
-
57. I. Koseva, A. Yordanova, P. Tzvetkov, V. Nikolov, D. Nihtianova.
Nanosized pure and Cr doped Al_{2-x}In_x(WO₄)₃ solid solutions.
Materials Chemistry and Physics 132(2-3), 2012, 808-814.
ISSN: 0254-0584 (IF: 2.234)
-
58. M. Najdoski, V. Koleva, S. Demiri.
Chemical bath deposition and characterization of electrochromic thin films of sodium vanadium bronzes.
Materials Research Bulletin 47(3), 2012, 737-743. ISSN: 0025-5408 (IF: 2.105)
-
59. A. Yordanova, I. Koseva, N. Velichkova, D. Kovacheva, D. Rabadjieva, V. Nikolov.
Nanosized pure and Cr doped Al_{2-x}Sc_x(WO₄)₃ solid solutions.
Materials Research Bulletin 47(6), 2012, 1544-1549. ISSN: 0025-5408 (IF: 2.105)
-
60. M. Najdoski, V. Koleva, S. Demiri, S. Stojkovikj.
A simple chemical method for deposition of electrochromic potassium manganese oxide hydrate thin films.
Materials Research Bulletin 47(9), 2012, 2239-2244. ISSN: 0025-5408 (IF: 2.105)
-
61. I. Koseva, A. Yordanova, D. Rabadjieva, P. Tzvetkov, V Nikolov.
Phase equilibria in the system NaAl(WO₄)₂ - NaCr(WO₄)₂.
Materials Research Bulletin 47(11), 2012, 3580-3585.
ISSN: 0025-5408 (IF: 2.105)
-
62. I. Stambolova, V. Blaskov, M. Shipochka, S. Vassilev, V. Petkova, A. Loukanov.
Simple way for preparation of ZnO films by surfactant mediated spray pyrolysis. **Materials Science and Engineering B: Solid-State Materials for Advanced Technology 177(13), 2012, 1029-1037. ISSN: 0921-5107 (IF: 1.518)**
-
63. M. Maczka, V. Nikolov, K. Hermanowicz, A. Yordanova, M. Kurnatowska, J. Hanuza.
Optical and phonon properties of nanocrystalline Al₂(WO₄)₃ doped with chromium(III) prepared by co-precipitation method.
Optical Materials 34(7), 2012, 1048-10553. ISSN: 0925-3467 (IF: 2.023)
-
64. A. Bachvarova-Nedelcheva, R. Iordanova, K.L. Kostov, St. Yordanov, V. Ganev,
Structure and properties of a non-traditional glass containing TeO₂, SeO₂ and

- MoO₃.**
Optical Materials 34, 2012, 1781-1787. ISSN: 0925-3467 (IF: 2.023)
-
65. Z. Zakhariyev, I. Stambolova, M. Marinov, C. Perchemliev.
Borozar-PII boronaluminising paste for steels treatment.
Oxidation Communications 35(2), 2012, 491-496. **ISSN: 0209-4541 (IF: 0.123)**
-
66. Z. Zakhariyev, I. Stambolova, M. Marinov.
Oxidation stability of layers obtained by boronaluminising of steels.
Oxidation Communications 35(2), 2012, 497-502. **ISSN: 0209-4541 (IF: 0.123)**
-
67. O. Lagunov, K. Chakarova, K. Hadjiivanov,
Silver-catalyzed low-temperature CO isotopic scrambling reaction: $12\text{C}16\text{O} + 13\text{C}18\text{O} \rightarrow 12\text{C}18\text{O} + 13\text{C}16\text{O}$.
Physical Chemistry Chemical Physics 14(7), 2012, 2178-2182.
ISSN: 1463-9076, E ISSN: 1463-9084 (electronic) (IF: 3.573)
-
68. Y. Dimitriev, R. Iordanova, M. Milanova, A. Bachvarova-Nedelcheva, M. Hassan, M. Abdallah,
Crystallization of ZnO from supercooled melts and glasses.
Physics and Chemistry of Glasses: European Journal of Glass Science and Technology B 53 (2) (2012) 254-263. **ISSN: 1753-3562 (IF:0.628)**
-
69. E. Kashchieva, I. Petrov, L. Aleksandrov, R. Iordanova, Y. Dimitriev,
"Microstructure of multicomponent borosilicate glasses containing MoO₃.
Physics and Chemistry of Glasses, European Journal of Glass Science and Technology B 53 (6), 2012, 264–270. **ISSN: 1753-3562 (IF:0.628)**
-
70. A. O. Dikovska, N. N. Nedyalkov, S. E. Imamova, G. B. Atanasova, P. A. Atanasov.
Au-coated ZnO nanostructures for surface enhanced raman spectroscopy applications.
Quantum Electronics 42(3), 2012, 258-261.
ISSN 1063-7818, E-ISSN 1468-4799 (electronic) (IF: 0.832)
-
71. M. Gabrovska, R. Edreva-Kardjieva, D. Crişan, P. Tzvetkov, M. Shopska, I. Shtereva.
Ni-Al layered double hydroxides as catalyst precursors for CO₂ removal by methanation,
Reaction Kinetics, Mechanisms and Catalysis 105(1), 2012, 79-99.
ISSN: 1878-5190, E-ISSN:1878-5204 (electronic) (IF: 0.829)
-
72. V. Antonov, I. Georgieva, N. Trendafilova, D. Kovacheva, K. Krezhov.
First principles study of structure and properties of La- and Mn-modified BiFeO₃.
Solid State Sciences 14(7), 2012, 782-788. **ISSN: 1293-2558 (IF: 1.856)**
-
73. M. Atanasov, D. Ganyushin, K. Sivalingam, F. Neese.
A modern first-principles view on ligand field theory through the eyes of correlated multireference wavefunctions.
Structure and Bonding 143, 2012, 149-220. **ISSN: 0081- 5993 (IF: 3.475)**
-
74. N. Kaneva, I. Stambolova, V. Blaskov, Y Dimitriev, A Bojinova, C Dushkin.
A comparative study on the photocatalytic efficiency of ZnO thin films prepared by spray pyrolysis and sol-gel method,
Surface and Coating Technology 207, 2012, 5-10. **ISSN: 0257-8972 (IF: 1.867)**
-
75. D. Guergova, E. Stoyanova, D. Stoychev, I. Avramova, P. Stefanov. Investigation of the inhibiting effect of cerium ions on the corrosion behavior of OC404 stainless steel in sulfuric acid medium.
Open Chemical Physics Journal 4, 2012, 8-17. **ISSN: 1874-4125 (IF: 1.650)**
-

76. V. Koleva, V. Stefov, M. Najdoski, A. Cahil.
Vibrational spectra of cobalt dihydrogen phosphate dihydrate,
 $\text{Co}(\text{H}_2\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$.
Vibrational Spectroscopy 62, 2012, 229-237. [ISSN: 0924-2031 \(IF: 1.650\)](#)
-
77. V. Koleva, V. Petkova,
IR spectroscopic study of high energy activated tunisian phosphorite.
Vibrational Spectroscopy 58, 2012, 125-132. [ISSN: 0924-2031 \(IF: 1.650\)](#)

2.2. под печат

1. R. Ilieva, E. Dyulgerova; O. Petrov; R. Aleksandrova; R. Titorenkova.
Effects of high energy dry milling on biphasic calcium phosphates.
Advances in Applied Ceramics.
[ISSN: 1743-6753, E-ISSN 1753-6761 \(electronic\) \(IF: 0.871\)](#)
-
2. T. Tsoncheva, G. Issa, T. Blasco, M. Dimitrov, M. Popova, S. Hernández, D. Kovacheva, G. Atanasova, J. M. López Nieto.
Catalytic VOCs elimination over copper and cerium oxide modified mesoporous SBA-15 silica.
Applied Catalysis A: General. [ISSN: 0926-860X \(IF:3.903\)](#)
-
3. E. Grigorova, M. Khristov, P. Peshev, D. Nihtianova, N. Velichkova and G. Atanasova.
Hydrogen sorption properties of a $\text{MgH}_2 - \text{V}_2\text{O}_5$ composite prepared by ball milling,
Bulgarian Chemical Communications. [ISSN: 0861-9808 \(IF: 0.283\)](#)
-
4. K. Nikolova, G. Gentscheva, A. Panchev, E. Ivanova,
Survey of the mineral content and some physico-chemical parameters of Bulgarian bee honeys,
Bulgarian Chemical Communications. [ISSN: 0861-9808 \(IF: 0.283\)](#)
-
5. P. Vassileva, A. Detcheva, I. Uzunov, S. Uzunova.
Removal of some metal ions from aqueous solutions using pyrolyzed rice husks: adsorption kinetics and equilibria.
Chemical Engineering Communications.
[ISSN: 0098-6445, E-ISSN: 1563-5201 \(electronic\) \(SJR: 0.37\)](#)
-
6. P. S. Vassileva, M. S. Apostolova, A. K. Detcheva, E. Ivanova.
Bulgarian natural diatomites – modification and characterization,
Chemical Papers. [ISSN: 0366-6352, E-ISSN: 1336-9075 \(electronic\) \(IF: 1.096\)](#)
-
7. J. M. Zadrozny, M. Atanasov, A. M. Bryan, C.-Y. Lin, B. D. Reken, P. P. Power, Frank Neese, Jeffrey R. Long,
Slow magnetization dynamics in a series of two-coordinate iron(II) complexes.
Chemical Science. [ISSN: 2041-6520, E-ISSN: 2041-6539 \(electronic\) \(IF: 7.525\)](#)
-
8. M. Atanasov, J. M. Zadrozny, J. R. Long, F. Neese.
A theoretical analysis of chemical bonding, vibronic coupling, and magnetic anisotropy in linear iron(II) complexes with single-molecule magnet behavior.
Chemical Science. [ISSN: 2041-6520, E-ISSN: 2041-6539 \(electronic\) \(IF: 7.525\)](#)
-
9. M. Atanasov, P. Surawatanawong, K. Wieghardt, F. Neese.
A theoretical study of zero-field splitting in $\text{Fe}(\text{IV})\text{S}_6$ ($S = 1$) and $\text{Fe}(\text{III})\text{S}_6$ ($S = 1/2$) core complexes, $[\text{Fe}(\text{IV})(\text{Et}_2\text{dtc})_3 - n(\text{mnt})_n](n-1)-$ and $[\text{Fe}(\text{III})(\text{Et}_2\text{dtc})_3 - n(\text{mnt})_n]n-$ ($n = 0, 1, 2, 3$): The origin of the magnetic anisotropy.
Coordination Chemistry Review.
[ISSN: 0009-2665, E-ISSN: 1520-6890 \(electronic\) \(IF: 12.110\)](#)

10. R. Georgieva, A. Detcheva, M. Karadjov, J. Jordanov, E. Ivanova.
Total reflection X-ray fluorescence analysis of the microtrace content in Bulgarian bottled mineral waters of low and high mineralization.
International Journal of Environmental Analytical Chemistry.
ISSN: 0306-7319 (IF: 1.162)
-
11. E. L. Uzunova, H. Mikosch, G. St. Nikolov.
Density functional study of copper-exchanged zeolites and related microporous materials: Adsorption of nitrosyls.
International Journal of Quantum Chemistry.
ISSN: 0020-7608, E-ISSN: 1097-461X (electronic) (IF: 1.357)
-
12. S. Stojkovikj, M. Najdoski, V. Koleva, S. Demiri,
“Preparation of electrochromic thin films by transformation of manganese (II) carbonate”.
Journal of Physics and Chemistry of Solids. ISSN: 0022-3697 (IF=1.632)
-
13. M. Mladenov, K. Alexandrova, N. V. Petrov, B. Tsyntsarski, D. Kovacheva, N. Saliyski, R. Raicheff.
Synthesis and electrochemical properties of activated carbons and Li₄Ti₅O₁₂ as electrode materials for supercapacitors.
Journal of Solid State Electrochemistry.
ISSN: 1432-8488, E-ISSN: 1433-0768 (electronic) (IF: 2.131)
-
14. R. Nickolov, I. Spassova, N. Velichkova, M. Khristova, V. Dimitrova, P. Tzvetkova.
Hybrid Materials as Catalyst Support in NO Reduction with CO.
Microporous and Mesoporous Materials ISSN: 1387-1811 (IF: 3.285)
-
15. M. Maczka, K. Hermanowicz, L. Kepiński, J. Hanuza, A. Yordanova, I. Koseva.
Raman spectroscopy and optical properties of nanocrystalline NaAl(WO₄)₂:Cr³⁺ powders prepared by co-precipitation/calcination method.
Optical Materials. ISSN: 0925-3467 (IF: 2.023)
-
16. D. Stoyanova, P. Georgieva, N. Kasabova.
Pd-containing catalysts promoted by NiO designed for reduction of NO with CO at stoichiometric NO/CO ratio.
Reaction Kinetics Mechanisms and Catalysis ISSN: 1878-5190, E-ISSN: 1878-5204 (electronic) (IF: 0.829)
-
17. V. Koleva, V. Stefov.
Phosphate ion vibrations in dihydrogen phosphate salts of the type M(H₂PO₄)₂·2H₂O (M = Mg, Mn, Co, Ni, Zn, Cd): Spectra–structure correlations.
Vibrational Spectroscopy. ISSN: 0924-2031 (IF: 1.650)
-

3. Списък на публикациите, без рефериране и индексирание в световната система за рефериране, индексирание и оценяване (в световни вторични литературни източници)

3.1. Излезли от печат

1. R. Alexandrova, B. Andonova-Lilova, T. Zhivkova, L. Dyakova, A. Gancheva, K. Popova, D. Rabadjieva, S. Tepavitcharova.
Influence of a Sr-modified dicalcium phosphate on viability and proliferation of murine fibroblasts and cultures from bone explants.

Journal of Bioscience and Biotechnology SPECIAL EDITION/ONLINE, 2012, 21-24. ISSN: 1314-6246, E-ISSN: 1314-6248 (electronic)

2. S. Veleva, Z. Cherkezova-Zheleva, M. Shopska, D. Paneva, V. Grudeva, M. Iliev, L. Slavov, I. Nedkov, G. Kadinov, I. Mitov, M. Mladenov, D. Kovacheva. Study of new materials based on biogenic iron oxides: physicochemical, electrochemical and catalytic properties. *Nanoscience and Nanotechnology 12*, 2012,135-138 **ISSN: 1313-8995**
3. A. Stoyanova, H. Hitkova, A. Bachvarova-Nedelcheva, R. Iordanova, N. Ivanova and M. Sredkova, Preparation, characterization and photocatalytic properties of nanocrystalline TiO₂ powders by sol-gel method”, *NanoScience and Nanotechnology 12*, 2012, 23-27. **ISSN: 1313-8995**
4. S.Stankov, A.Aleksandrova, I.Uzunov, S.Uzunova, B.Banov, A.Momchilov. Alternative application of processed rice husks as carbon based material for Li-ion batteries. *Nanoscience and Nanotechnology,12*, 2012, 64-67. **ISSN: 1313-8995**
5. E. Todorova, G. Chernev, S Djambazov, P. Markov, H. Dimova, Anostructured sol-gel coatings for concrete protection, *Nanoscience and Nanotechnology 12*, 2012, 99-101. **ISSN: 1313-8995**
6. K. Genov, I Stambolova, V. Blaskov, L. Dimitrov. Photocatalytic activity of TiO₂ supported clinoptilolite for decoloration of Reactive Black 5 dye. *Nanoscience and Nanotechnology 12*, 2012, 33-36. **ISSN: 1313-8995**
7. G. Ivanova, A. Stoyanova-Ivanova, S. Terzieva, D. Kovacheva, M. Mladenov, B. Blagoev, D. Dimitrov. Opportunites for improving the electrochemical characteristics of Ni-Zn batteries using high temperature superconducting ceramic. *Proceedings of the 12th Cryogenics International Conference, Dresden, Germany, September 11-14, 2012, pp. 346-350. ISBN:978-2-913149-93-9, ISSN: 0151-1637*
8. E. Zhecheva, S. Ivanova, M. Khristov, V. Vulchev, L. Vassilev and R. Stoyanova. Nickel and Iron Co-substituted Lanthanum Cobaltates as New Thermoelectric Oxide Materials. *Fuelling the Future: Advances in Science and Technologies for Energy Generation, Transmission and Storage*, Ed. A. Mendez-Vilas, BrownWalker Press, Boca Raton, Florida, USA 2012, pp. 475-479. **ISBN-10: 1-61233-558-6, ISBN-13: 978-1-61233-558-2**

2.2. под печат

1. M. Kandeва, V. Blaskov, I. Stambolova, N.G. Kostova, S.Vasilev. Abrasive wear of sprayed TiO₂ films. *Tribological Journal Bultrib. ISSN: 1313-8995*

4. Учебници, учебни помагала, публицистика, научно-популярни произведения, художествени творби от всякакъв вид

Излезли от печат

- 1. Христо Баларев – „Димитър Баларев в спомените и в бъдещето”. Природа 119, кн.1, стр. 89-92, 2012 г.**
-

[top page](#)