

**СПИСЪК НА ПУБЛИКАЦИИТЕ НА УЧЕНИТЕ ОТ ИОНХ  
ПРЕЗ 2009 г.**

(публикациите са представени по азбучен ред на списанията)

1. Weil, M., Stöger, B., Aleksandrov, L.  
*Nd<sub>2</sub>(WO<sub>4</sub>)<sub>3</sub>*  
Acta Crystallographica Section E: Structure Reports Online, 65 (2009) i45.
2. Kovachev, S., Kovacheva, D., Aleksovska, S., Svab, E., Krezhov, K.  
*Structure and properties investigation of mixed oxides YCr<sub>1-x</sub>Fe<sub>x</sub>O<sub>3</sub> (0 ≤ x ≤ 1)*  
AIP Conference Proceedings, 1203 (2009) 199-204.
3. Georgieva, V.B., Stefchev, P.L., Stefanov, P.K., Raicheva, Z.G., Atanasov, M.J., Lazarov, Y.V.  
*Study of the Ag-doped effect on the LPD-TiO<sub>2</sub> gas sensing properties*  
AIP Conference Proceedings, 1203 (2009) 1068-1073.
4. Antonov, V., Krezhov, K., Trendafilova, N.  
*First principles study of electronic and crystallographic structure and elastic properties of RbNiF<sub>3</sub>*  
AIP Conference Proceedings, 1203 (2009) 1143-1148.
5. Detcheva, A., Barth, P., Hassler, J.  
*Calibration possibilities and modifier use in ETV ICP OES determination of trace and minor elements in plant materials*  
Analytical and Bioanalytical Chemistry, 394 (2009) 1485-1495.
6. Petrov, A., Gentscheva, G., Havezov, I., Ivanova, E.  
*Determination of the uncertainty of the flame atomic absorption spectrometer for copper, cobalt, cadmium, and nickel*  
Analytical Letters 42 (2009) 2509-2519.
7. Resini, C., Venkov, T., Hadjiivanov, K., Presto, S., Riani, P., Marazza, R., Ramis, G., Busca, G.  
*An FTIR study of the dispersed Ni species on Ni-YSZ catalysts*  
Applied Catalysis A: General 353 (2009) 137-143.
8. Andreeva, D., Ivanov, I., Ilieva, L., Abrashev, M.V., Zanella, R., Sobczak, J.W., Lisowski, W., Kantcheva, M., Avdeev, G., Petrov, K.  
*Gold catalysts supported on ceria doped by rare earth metals for water gas shift reaction: Influence of the preparation method*  
Applied Catalysis A: General, 357 (2009) 159-169.
9. Stankova, N.E., Dimitrov, I.G., Stoyanchov, T.R., Atanasov, P.A., Kovacheva, D.  
*Structure and optical anisotropy of pulsed-laser deposited TiO<sub>2</sub> films for optical applications*  
Applied Surface Science 255 (2009) 5275-5279.
10. Milev, D.R., Atanasov, P.A., Dikovska, A., Dimitrov, I.G., Petrov, K.P., Avdeev, G.V.  
*Pulsed laser deposited Er<sup>3+</sup>, Yb<sup>3+</sup>:YVO<sub>4</sub> waveguiding films on MgO/Si substrates*

Applied Surface Science, 255 (2009) 5284-5287.

11. Fisak, J., Stoyanova, V., Tesar, M., Petrova, P., Daskalova, N., Tsacheva, T., Marinov, M.  
*The pollutants in rime and fog water and in air at Milesovka Observatory (Czech Republic)*  
Biologia, 64 (2009) 492-495.
12. Koleva, B., Ivanova, E.  
*Flow injection analysis coupled with atomic spectrometry (Review)*  
Bulgarian Chemical Communications, 41, 3-11 (2009).
13. Petrova, P., Velichkov, S., Havezov, I., Daskalova, N.  
*Inductively coupled plasma atomic emission spectrometry – line selection and accuracy in the determination of platinum, palladium, rhodium, barium and lead in automotive catalytic converters*  
Bulgarian Chemical Communications, 41, 65-71 (2009).
14. Mihaylova, A., Naydenov, A., Kovacheva, D., Ivanova, E., Stoyanova, D., Stefanov, P.  
*Silver-based storage catalyst for neutralization of nitrogen oxides*  
Catalysis Communications, 10 (2009) 1288-1291.
15. Penkova, A., Chakarova, K., Laguna, O.H., Hadjiivanov, K., Saria, F.R., Centeno, M.A., Odriozola, J.A.  
*Redox chemistry of gold in a Au/FeO<sub>x</sub>/CeO<sub>2</sub> CO oxidation catalyst*  
Catalysis Communications, 10 (2009) 1196-1202.
16. Cayirtepe, I., Naydenov, A., Ivanov, G., Kantcheva, M.  
*Characterization of niobium-zirconium mixed oxide as a novel catalyst for selective catalytic reduction of NO<sub>x</sub>*  
Catalysis Letters, 132 (2009) 438-449.
17. Dzwigaj, S., Ivanova, E., Kefirov, R., Hadjiivanov, K., Averseng, F., Krafft, J.M., Che, M.  
*Remarkable effect of the preparation method on the state of vanadium in BEA zeolite: Lattice and extra-lattice V species*  
Catalysis Today, 142 (2009) 185-191.
18. Radev, L., Fernandes, M.H.V., Salvado, I.M., Kovacheva, D.  
*Organic/inorganic bioactive materials part III: In vitro bioactivity of gelatin/ silicocarnotite hybrids*  
Central European Journal of Chemistry 7 (2009) 721-730.
19. Khristova, M.S., Petrović, S.P., Terlecki-Baričević, A., Mehandjiev, D.R.  
*Catalytic reduction of NO by CO over Pd-doped Perovskite-type catalysts*  
Central European Journal of Chemistry, 7 (2009) 857-863.
20. Georgieva, I., Trendafilova, N., Creaven, B.S., Walsh, M., Noble, A., McCann, M.  
*Is the C=O frequency shift a reliable indicator of coumarin binding to metal ions through the carbonyl oxygen?*  
Chemical Physics, 365 (2009) 69-79.
21. Dodoff, N.I., Kubiak, M., Kuduk-Jaworska, J., Mastalarz, A., Kochel, A., Vassilieva, V., Vassilev, N., Trendafilova, N., Georgieva, I., Lalia-Kantouri, M., Apostolova, M.  
*Structure, NMR spectra and cytotoxic effect of palladium(II) and platinum(II) complexes of glyoxylic acid*

- oxime*  
Chemija, 20 (2009) 208–217.
22. Uzunov, I., Uzunova, S., Aleksandrova, A., Klissurski, D.  
*Effect of the synthesis method on the microstructure, morphology and electrochemical characteristics of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> anodes for lithium ion batteries*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 195-202.
23. Markova-Velichkova, M., Iordanova, R., Dimitriev, Y., Klissurski, D., Avdeev, G.  
*Direct mechanochemical synthesis of zinc vanadate*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 203-206.
24. Dimitrova, S., Nikolov, V., Mehandjiev, D.  
*Effect of additives on the ability of metallurgical slag to extract heavy metals from aqueous solutions*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 335-340.
25. Uzunov, I., Uzunova, S., Gigova, A., Klissurski, D., Tsokov, P., Angelova, D.  
*Synthesis of biogenic carbon/silica material by pyrolysis of rice husks*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 571-578.
26. Klissurski, D., Abadzhieva, N., Kassabov, S., Stefanov, P., Kovacheva, D., Uzunov, I.  
*Selective oxidation of methanol to formaldehyde on iron vanadate catalyst*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 1073-1078.
27. Donkova, B., Kotzeva, B., Mehandjiev, D.  
*Thermal magnetic investigation of the decomposition of CoC<sub>2</sub>O<sub>4</sub>·2H<sub>2</sub>O*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 1229-1240.
28. Petrov, A., Gentscheva, G., Havezov, I., Ivanova, E.  
*Instrumental contribution to uncertainty measurement in flame atomic absorption spectrometry*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 1325-1334.
29. Nikolov, P., Milenova, K., Genov, K., Boevski, I.  
*Physicochemical properties of silver exchanged clinoptilolite from Beli Plast, east Rhodopes*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 1393-1398.
30. Nikolov, P., Genov, K., Ivanov, B., Milenova, K., Avramova, I.  
*Ozone decomposition on PdO-CeO<sub>2</sub>/ZSM-5 catalyst*  
Comptes Rendus de L'Academie Bulgare des Sciences, 62 (2009) 1515-1520.
31. Atanasov, M., Comba, P., Hausberg, S., Martin, B.  
*Cyanometalate-bridged oligonuclear transition metal complexes-Possibilities for a rational design of SMMs*  
Coordination Chemistry Reviews, 253 (2009) 2306-2314.
32. Yoncheva, M., Stoyanova, R., Zhecheva, E., Alcántara, R., Ortiz, G., Tirado, J.L.  
*Electrochemical performance and local cationic distribution in layered LiNi<sub>1/2</sub>Mn<sub>1/2</sub>O<sub>2</sub> electrodes for lithium ion batteries*  
Electrochimica Acta, 54 (2009) 1694-1701.

33. Tepavitcharova, S., Todorov, T., Rabadjieva, D., Dassenakis, M., Paraskevopoulou, V.  
*Chemical speciation of inorganic pollutants in river - Estuary - Sea water systems*  
Environmental Monitoring and Assessment, 149 (2009) 251-260.
34. Rabadjieva, D., Tepavitcharova, S., Todorov, T., Dassenakis, M., Paraskevopoulou, V., Petrov, M.  
*Chemical speciation in mining affected waters: The case study of Asarel-Medet mine*  
Environmental Monitoring and Assessment, 159 (2009) 353-366.
35. Vassileva, P., Tzvetkova, P., Nickolov, R.  
*Removal of ammonium ions from aqueous solutions with coal-based activated carbons modified by oxidation*  
Fuel, 88 (2009) 387-390.
36. Stoyanova, R., Barra, A.-L., Zhecheva, E., Alcántara, R., Ortiz, G., Tirado, J.-L.  
*Local coordination of  $Fe^{3+}$  in layered  $LiCo_{1-y}Al_yO_2$  oxides determined by high-frequency electron paramagnetic resonance spectroscopy*  
Inorganic Chemistry, 48 (2009) 4798-4805.
37. Tzvetkov, P., Ivanova, D., Kovacheva, D., Nikolov, V.  
*Synthesis and powder XRD characterization of  $Al_{2-x}In_x(WO_4)_3$  solid solutions*  
Journal of Alloys and Compounds, 470 (2009) 492-496.
38. Yoncheva, M., Stoyanova, R., Zhecheva, E., Alcántara, R., Tirado, J.L.  
*Effect of the synthesis procedure on the local cationic distribution in layered  $LiNi_{1/2}Mn_{1/2}O_2$*   
Journal of Alloys and Compounds, 475 (2009) 96-101.
39. Koleva, V., Zhecheva, E., Stoyanova, R.  
*A new phosphate-formate precursor method for the preparation of carbon coated nano-crystalline  $LiFePO_4$*   
Journal of Alloys and Compounds, 476 (2009) 950-957.
40. Boiadjieva, Tz., Petrov, K., Kronberger, H., Tomandl, A., Avdeev, G., Artner, W., Lavric, T., Monev, M.  
*Composition of electrodeposited Zn-Cr alloy coatings and phase transformations induced by thermal treatment*  
Journal of Alloys and Compounds, 480 (2009) 259-264.
- 41., 480 (2009) 279-285.
42. Iordanova, R., Mancheva, M., Dimitriev, Y., Klissurski, D., Tyuliev, G., Kunev, B.  
*Synthesis of  $ZrMo_2O_8$  polymorphs by a melt quenching method and mechanochemical activation*  
Journal of Alloys and Compounds, 485 (2009) 104-109.
43. Tzvetkov, P., Petrova, N., Kovacheva, D.  
*Combustion assisted synthesis and characterization of  $Pb_{1.33}Sr_{0.67-x}Ba_xFe_2O_5$  ( $0 \leq x \leq 0.67$ ) perovskite-type materials.*  
Journal of Alloys and Compounds, 485 (2009) 862-866.
44. Hao, Y., Mihaylov, M., Ivanova, E., Hadjiivanov, K., Knözinger, H., Gates, B.C.  
*CO oxidation catalyzed by gold supported on MgO: Spectroscopic identification of carbonate-like species bonded to gold during catalyst deactivation*

Journal of Catalysis, 261 (2009) 137-149.

45. Christov, C.

*Chemical equilibrium model of solution behavior and bishofite ( $MgCl_2 \cdot 6H_2O(cr)$ ) and hydrogen-carnallite ( $HCl \cdot MgCl_2 \cdot 7H_2O(cr)$ ) solubility in the  $MgCl_2 + H_2O$  and  $HCl-MgCl_2 + H_2O$  systems to high acid concentration at (0 to 100) °C*

Journal of Chemical and Engineering Data, 54 (2009) 2599-2608.

46. Georgieva, I., Benco, L., Tunega, D., Trendafilova, N., Hafner, J., Lischka, H.

*Multiple adsorption of NO on cobalt-exchanged chabazite, mordenite, and ferrierite zeolites: A periodic density functional theory study*

Journal of Chemical Physics, 131 (2009) art. no. 054101.

47. Ivanova, D., Nikolov, V., Todorov, R.

*Single crystals growth and absorption spectra of  $Cr^{3+}$ -doped  $Al_{2-x}In_x(WO_4)_3$  solid solutions*

Journal of Crystal Growth, 311 (2009) 3428-3434.

48. Vassileva, P., Voikova, D.

*Investigation on natural and pretreated Bulgarian clinoptilolite for ammonium ions removal from aqueous solutions*

Journal of Hazardous Materials, 170 (2009) 948-953.

49. Stanković, M., Gabrovska, M., Krstić, J., Tzvetkov, P., Shopska, M., Tsacheva, T., Banković, P., Edreva-Kardjieva, R., Jovanović, D.

*Effect of silver modification on structure and catalytic performance of Ni-Mg/diatomite catalysts for edible oil hydrogenation*

Journal of Molecular Catalysis A: Chemical, 297 (2009) 54-62.

50. Koleva, V., Stefov, V., Cahil, A., Najdoski, M., Šoptrajanov, B., Engelen, B., Lutz, H.D.

*Infrared and Raman studies of manganese dihydrogen phosphate dihydrate,  $Mn(H_2PO_4)_2 \cdot 2H_2O$ . I: Region of the vibrations of the phosphate ions and external modes of the water molecules*

Journal of Molecular Structure, 917 (2009) 117-124.

51. Tepavitcharova, S., Havlíček, D., Němec, I., Vojtíšek, P., Rabadjieva, D., Plocek, J.

*Structural and spectral characterization of the compounds  $nGly \cdot ZnCl_2 \cdot mH_2O$  ( $n = 1,2,3; m = 0,2$ )*

Journal of Molecular Structure, 918 (2009) 55-63.

52. Koleva, V., Stefov, V., Cahil, A., Najdoski, M., Šoptrajanov, B., Engelen, B., Lutz, H.D.

*Infrared and Raman studies of manganese dihydrogen phosphate dihydrate,  $Mn(H_2PO_4)_2 \cdot 2H_2O$ . Part II: Region of the internal OH group vibrations*

Journal of Molecular Structure, 919 (2009) 164-169.

53. Stoilova, D., Georgiev, M., Lengauer, C.L., Wildner, M., Marinova, D.

*Vibrational behavior of  $SO_4^{2-}$  guest ions included in  $K_2Me(CrO_4)_2 \cdot 2H_2O$  ( $Me = Co, Ni$ ) and crystal structures of  $K_2Me(CrO_4)_2 \cdot 2H_2O$  ( $Me = Co, Ni$ )*

Journal of Molecular Structure, 920 (2009) 289-296.

54. Stefov, V., Cahil, A., Šoptrajanov, B., Najdoski, M., Spirovski, F., Engelen, B., Lutz, H.D., Koleva, V.

*Infrared and Raman spectra of magnesium ammonium phosphate hexahydrate (struvite) and its*

- isomorphous analogues. VII: Spectra of protiated and partially deuterated hexagonal magnesium caesium phosphate hexahydrate*  
Journal of Molecular Structure, 924-926 (2009) 100-106.
55. Marinova, D., Georgiev, M., Stoilova, D.  
*Vibrational behavior of matrix-isolated ions in Tutton compounds. I. Infrared spectroscopic study of  $NH_4^+$  and  $SO_4^{2-}$  ions included in magnesium sulfates and selenates*  
Journal of Molecular Structure, 929 (2009) 67-72.
56. Marinova, D., Georgiev, M., Stoilova, D.  
*Vibrational behavior of matrix-isolated ions in Tutton compounds. II. Infrared spectroscopic study of  $NH_4^+$  and  $SO_4^{2-}$  ions included in copper sulfates and selenates*  
Journal of Molecular Structure, 938 (2009) 179-184.
57. Uzunova, E.L., Mikosch, H., Hafner, J.  
*Theoretical study of transition metal cation exchanged zeolites: Interaction with NO*  
Journal of Molecular Structure: THEOCHEM, 912 (2009) 88-94.
58. Milanova, M., Iordanova, R., Kostov, K.L.  
*Glass formation in the  $MoO_3$ - $CuO$ - $PbO$  system*  
Journal of Non-Crystalline Solids, 355 (2009) 379-385.
59. Mancheva, M., Iordanova, R., Dimitriev, Y., Avdeev, G.  
*Synthesis of cubic  $ZrWMoO_8$  by a melt quenching method*  
Journal of Non-Crystalline Solids 355 (2009) 1904-1907.
60. Bachvarova-Nedelcheva, A., Iordanova, R., Yordanov, St., Dimitriev, Y.  
*Optical properties of selenite glasses*  
Journal of Non-Crystalline Solids, 355 (2009) 2027-2030.
61. Aleksandrov, L., Iordanova, R., Dimitriev, Y.  
*Glass formation in the  $MoO_3$ - $Nd_2O_3$ - $La_2O_3$ - $B_2O_3$  system*  
Journal of Non-Crystalline Solids, 355 (2009) 2023-2026.
62. Stoyanova, A., Iordanova, R., Mancheva, M., Dimitriev, Y.  
*Synthesis and structural characterization of  $MoO_3$  phases obtained from molybdic acid by addition of  $HNO_3$  and  $H_2O_2$*   
Journal of Optoelectronics and Advanced Materials 11 (2009) 1127-1131.
63. Nikolova, K.R., Panchev, I., Kovacheva, D., Pashova, S.  
*Thermophysical and optical characteristics of bee and plant waxes*  
Journal of Optoelectronics and Advanced Materials 11 (2009) 1210-1213.
64. Georgieva, V., Stefanov, P., Spassov, L., Raicheva, Z., Atanassov, M., Tincheva, T., Manolov, E., Vergov, L.  
*Thin  $MoO_3$  films for sensor applications*  
Journal of Optoelectronics and Advanced Materials, 11 (2009) 1363-1366.
65. Radev, D.D., Primatarova, L., Marinov, M.

- Titanium- and nickel-based alloys for medical applications, obtained by a powder metallurgy technique*  
Journal of Optoelectronics and Advanced Materials 11 (2009) 1525-1528.
66. Zakhariiev, Z., Beshkova, M., Blaskov, V., Stambolova, I., Perchemliev, C.  
*New superhard  $B_{12-n}C_3Me_n$  boride*  
Journal of Optoelectronics and Advanced Materials, 11 (2009) 1533-1536.
67. Beshkova, M., Blagoev, B., Kovacheva, D., Mladenov, G., Nurgaliev, T.  
*Effect of thermal annealing on the properties of the YBCO films grown by DC magnetron sputtering*  
Journal of Optoelectronics and Advanced Materials, 11 (2009) 1537-1540.
68. Kovachev, S., Kovacheva, D., Aleksovska, S., Svab, E., Krezhov, K.  
*Structure and magnetic properties of multiferroic  $YCr_{1-x}Fe_xO_3$  ( $0 \leq x \leq 1$ )*  
Journal of Optoelectronics and Advanced Materials, 11 (2009) 1549-1552.
69. Uzunova, E.L.  
*Intersystem crossings of the triplet and singlet states in cobalt and copper mononitrosyls*  
Journal of Physical Chemistry A, 113 (2009) 11266-11272.
70. Bulánek, R., Voleská, I., Ivanova, E., Hadjiivanov, K., Nachtigall, P.  
*Localization and coordination of  $Mg^{2+}$  cations in ferrierite: Combined FTIR spectroscopic and computation investigation of CO adsorption complexes*  
Journal of Physical Chemistry C, 113 (2009) 11066-11067.
71. Uzunova, E.L., Göttl, F., Kresse, G., Hafner, J.  
*Application of hybrid functionals to the modeling of NO adsorption on Cu-SAPO-34 and Co-SAPO-34: A periodic DFT study*  
Journal of Physical Chemistry C, 113 (2009) 5274-5291.
72. Blasin-Aube, V., Marie, O., Saussey, J., Plesniar, A., Daturi, M., Nguyen, N., Hamon, C., Mihaylov, M., Ivanova, E., Hadjiivanov, K.  
*Iron nitrosyl species in Fe-FER: A complementary Mössbauer and FTIR spectroscopy study*  
Journal of Physical Chemistry C, 113 (2009) 8387-8393.
73. Lizzit, S., Zhang, Y., Kostov, K.L., Petaccia, L., Baraldi, A., Menzel, D., Reuter, K.  
*O- and H-induced surface core level shifts on Ru(0001): Prevalence of the additivity rule*  
Journal of Physics Condensed Matter, 21 (2009) art. no. 134009.
74. Stoyanova, D., Nickolov, R., Khristova, M., Paneva, D., Mehandjiev, D.  
*Catalytic activity of Fe/AC, obtained by impregnation of activated carbon in aqueous and non-aqueous media, to neutralize NO*  
Journal of Porous Materials, 16 (2009) 1-7.
75. Martha, S.K., Sclar, H., Szmuk Framowitz, Z., Kovacheva, D., Saliyski, N., Gofer, Y., Sharon, P., Golik, E., Markovsky, B., Aurbach, D.  
*A comparative study of electrodes comprising nanometric and submicron particles of  $LiNi_{0.50}Mn_{0.50}O_2$ ,  $LiNi_{0.33}Mn_{0.33}Co_{0.33}O_2$ , and  $LiNi_{0.40}Mn_{0.40}Co_{0.20}O_2$  layered compounds*  
Journal of Power Sources, 189 (2009) 248-255.

76. Martha, S.K., Markevich, E., Burgel, V., Salitra, G., Zinigrad, E., Markovsky, B., Sclar, H., Pramovich, Z., Heik, O., Aurbach, D., Exnar, I., Buqa, H., Drezon, T., Semrau, G., Schmidt, M., Kovacheva, D., Saliyski, N.  
*A short review on surface chemical aspects of Li batteries: A key for a good performance*  
Journal of Power Sources, 189 (2009) 288-296.
77. Amarilla, J.M., Petrov, K., Picó, F., Avdeev, G., Rojo, J.M., Rojas, R.M.  
*Sucrose-aided combustion synthesis of nanosized  $\text{LiMn}_{1.99-y}\text{Li}_y\text{M}_{0.01}\text{O}_4$  ( $M = \text{Al}^{3+}, \text{Ni}^{2+}, \text{Cr}^{3+}, \text{Co}^{3+}$ ,  $y = 0.01$  and  $0.06$ ) spinels. Characterization and electrochemical behavior at 25 and at 55 °C in rechargeable lithium cells*  
Journal of Power Sources, 191 (2009) 591-600.
78. Alcántara, R., Ortiz, G., Tirado, J.L., Stoyanova, R., Zhecheva, E., Ivanova, Sv.  
 *$\text{Fe}^{3+}$  and  $\text{Ni}^{3+}$  impurity distribution and electrochemical performance of  $\text{LiCoO}_2$  electrode materials for lithium ion batteries*  
Journal of Power Sources, 194 (2009) 494-501.
79. Avdeev, G., Amarilla, J.M., Rojo, J.M., Petrov, K., Rojas, R.M.  
*Composition and structure of acid leached  $\text{LiMn}_{2-y}\text{Ti}_y\text{O}_4$  ( $0.2 \leq y \leq 1.5$ ) spinels*  
Journal of Solid State Chemistry, 182 (2009) 3226-3231.
80. Sclar, H., Kovacheva, D., Zhecheva, E., Stoyanova, R., Lavi, R., Kimmel, G., Grinblat, J., Girshevitz, O., Amalraj, F., Haik, O., Zinigrad, E., Markovsky, B., Aurbach, D.  
*On the performance of  $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{O}_2$  nanoparticles as a cathode material for lithium-ion batteries*  
Journal of the Electrochemical Society, 156 (2009) A938-A948.
81. Georgiev, M., Marinova, D., Stoilova, D.  
*Matrix IR spectroscopy of  $\text{SO}_4^{2-}$  ions included in some synthetic selenate and chromate minerals*  
Journal of the University of Chemical Technology and Metallurgy, 44 (2009) 71-78.
- 82.
83. Y. Dimitriev, Y. Ivanova, A. Staneva, L. Alexandrov, M. Mancheva, R. Iordanova, C. Dushkin, N. Kaneva, C. Iliev,  
*Synthesis of submicron powders of ZnO and  $\text{ZnO-M}_n\text{O}_m$  ( $M_n\text{O}_m = \text{TiO}_2, \text{V}_2\text{O}_5$ ) by sol-gel method*  
Journal of the University of Chemical Technology and Metallurgy, 44 (2009) 235-242.
84. Genov, K., Nikolova, D.  
*From 1-methylnaphthalene to aminobenzoyl-2-hydroxy-1-naphthyl hydrazone*  
Journal of the University of Chemical Technology and Metallurgy, 44 (2009) 281-285.
85. Avramova, I., Stoyanova, D., Kasabova, N.  
*The role of modified alumina support for the formation of active Cu-Co oxide phase – an XPS*



- investigation*  
Journal of the University of Chemical Technology and Metallurgy, 44 (2009) 359-364.
86. Mandzhukova, T., Bobet, J.-L., Khrussanova, M., Peshev, P.  
*Hydrogen sorption properties of MgH<sub>2</sub>-NiCo<sub>2</sub>O<sub>4</sub> composites activated mechanically under argon and hydrogen atmospheres*  
Materials Research Bulletin, 44 (2009) 1968-1972.
87. Pekounov, Y., Chakarova, K., Hadjiivanov, K.  
*Surface acidity of calcium phosphate and calcium hydroxyapatite: FTIR spectroscopic study of low-temperature CO adsorption*  
Materials Science and Engineering C, 29 (2009) 1178-1181.
88. Kolaklieva, L., Kakanakov, R., Stefanov, P., Cimalla, V., Maroldt, S., Ambacher, O., Tonisch, K., Niebelschütz, F.  
*Composition and Interface Chemistry Dependence in Ohmic Contacts to GaN HEMT Structures on the Ti/Al Ratio and Annealing Conditions*  
Materials Science Forum, 615-617 (2009) 951-954.
89. Penkova, A., Martínez Blanes, J.M., Cruz, S.A., Centeno, M.A., Hadjiivanov, K., Odriozola, J.A.  
*Gold nanoparticles on silica monospheres modified by amino groups*  
Microporous and Mesoporous Materials, 117 (2009) 530-534.
90. Chakarova, K., Hadjiivanov, K.  
*Coordination chemistry of cobalt ions in ferrierite: An FTIR spectroscopic study*  
Microporous and Mesoporous Materials, 123 (2009) 123-128.
91. Hadjiivanov, K., Penkova, A., Kefirov, R., Dzwigaj, S., Che, M.  
*Influence of dealumination and treatments on the chromium speciation in zeolite CrBEA*  
Microporous and Mesoporous Materials, 124 (2009) 59-69.
92. Ilieva, D., Kashchieva, E., Dimitriev, Y., Yordanova, R.  
*Heterogeneous structures in the systems B<sub>2</sub>O<sub>3</sub>-MoO<sub>3</sub>-CoO and B<sub>2</sub>O<sub>3</sub>-MoO<sub>3</sub>-Fe<sub>2</sub>O<sub>3</sub>*  
NATO Science for Peace and Security Series B: Physics and Biophysics, 2009, 371-376.
93. Lizzit, S., Zampieri, G., Kostov, K.L., Tyuliev, G., Larciprête, R., Petaccia, L., Naydenov, B., Menzel, D.  
*Charge transfer from core-excited argon adsorbed on clean and hydrogenated Si(100): Ultrashort timescales and energetic structure*  
New Journal of Physics, 11 (2009) art. no. 053005.
94. Bachvarova-Nedelcheva, A., Iordanova, R., Dimitriev, Y.  
*Glass formation in the system SeO<sub>2</sub>-CuO-B<sub>2</sub>O<sub>3</sub>*  
Optoelectronics and Advanced Materials, Rapid Communications 3 (2009) 320-322.
95. Donkova, B.V., Milenova, K.I., Mehandjiev, D.R.  
*Catalytic activity of doped low-percentage oxide catalysts Cu/ZnO obtained from oxalate precursor*  
Oxidation Communications, 32 (2009) 579-592.

96. Dimitriev, Y., Iordanova, R.  
*Non-traditional molybdate glasses*  
Physics and Chemistry of Glasses: European Journal of Glass Science and Technology Part B, 50 (2009) 123-132.
97. Dimitriev, Y., Iordanova, R., Aleksandrov, L., Kostov, K.L.  
*Boromolybdate glasses containing rare earth oxides*  
Physics and Chemistry of Glasses: European Journal of Glass Science and Technology Part B, 50 (2009) 212-218.
98. Markova-Velichkova, M., Iordanova, R.  
*Fast synthesis of the polycrystalline materials on the base of  $Zn_3V_2MoO_{11}$  and  $Zn_{2.5}VMoO_8$*   
Processing and Application of Ceramics, 3 (2009) 181-186.
99. Gabrovska, M., Nikolova, D., Krstić, J., Stanković, M., Stefanov, P., Edreva-Kardjieva, R., Jovanović, D.  
*The state of nickel in the silver modified NiMg/SiO<sub>2</sub> vegetable oil hydrogenation catalysts*  
Russian Journal of Physical Chemistry A, 83 (2009) 1461-1467.
100. Georgiev, M., Wildner, M., Stoilova, D.  
*Hydrogen bond strength in some beryllium salts,  $BeXO_4 \cdot 4H_2O$  and  $Me_2Be(XO_4)_2 \cdot 2H_2O$  ( $X = S, Se$ ;  $Me = K, Rb$ ): Correlation of structural data and infrared spectra*  
Solid State Sciences, 11 (2009) 1358-1362.
101. Stoilova, D., Marinova, D., Wildner, M., Georgiev, M.  
*Comparative study on energetic distortions of  $SO_4^{2-}$  ions matrix-isolated in compounds with kröhnkite-type chains,  $K_2Me(CrO_4)_2 \cdot 2H_2O$  and  $Na_2Me(SeO_4)_2 \cdot 2H_2O$  ( $Me = Mg, Co, Ni, Zn, Cd$ )*  
Solid State Sciences, 11 (2009) 2044-2050.
102. Hadjiivanov, K., Knözinger, H.  
*Characterization of vacant coordination sites of cations on the surfaces of oxides and zeolites using infrared spectroscopy of adsorbed probe molecules*  
Surface Science, 603 (2009) 1629-1636.
103. Genov, K., Nikolov, P.  
*A comparison investigation of low temperature adsorption of CO<sub>2</sub> for active carbon filters and model of filter from natural zeolite, cared in non woven textile*  
Tekstil i Obleklo 57 (2009) 14-18.
104. Nikolov, P., Genov, K., Boevski, Iv.  
*Silver exchanged clinoptilolite (Ag-HEU Zeolite Framework Type) as an antibacterial agent for washing of textile*  
Tekstil i Obleklo 57 (2009) 4-7.
105. Donkova, B., Kotzeva, B., Vasileva, P., Mehandjiev, D.  
*Thermal magnetic investigation of the decomposition of  $Ni_xMn_{1-x}C_2O_4 \cdot 2H_2O$*

Thermochimica Acta, 481 (2009) 12-19.

106. Haik, O., Martha, S.K., Sclar, H., Samuk-Fromovich, Z., Zinigrad, E., Markovsky, B., Kovacheva, D., Saliyski, N., Aurbach, D.  
*Characterizations of self-combustion reactions (SCR) for the production of nanomaterials used as advanced cathodes in Li-ion batteries*  
Thermochimica Acta, 493 (2009) 96-104.
107. Nickolov, R., Velichkova, N.  
*Investigation of the possibilities for preparing a new type of carbon sorbent by modifying activated carbon with lyophilized plasma proteins*  
Trakia Journal of Sciences, 7 (2009) 7-12.
108. Stoilova, D., Marinova, D., Georgiev, M.  
*Hydrogen bond strength in chromates with kröhnkite-type chains,  $K_2Me(CrO_4)_2 \cdot 2H_2O$  ( $Me = Mg, Co, Ni, Zn, Cd$ )*  
Vibrational Spectroscopy, 50 (2009) 245-249.