

**Списък на научните публикации на доц. д-р инж. Митко Петров Георгиев,
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Научни трудове, отпечатани в специализирани научни списания:

1. M. Maneva, M. Botova, D. Nikolova, **M. Georgiev**
“Synthesis, thermal and calorimetric investigations of $CuH_3IO_6 \cdot 2H_2O$ and $Ag_2H_3IO_6 \cdot 2H_2O$ ”
Thermochim. Acta 354 (2000) 21-24.
2. P. Guetchev, D. Nikolova, **M. Georgiev**
“Technical – economic estimation for $BaCO_3$ production”
J. Univ. Chem. Technol. Metall. (Sofia) 38 (2003) 819-824.
3. V. G. Koleva, V. A. Karadjova, **M. P. Georgiev**
“Characterization of beryllium selenates by X-ray powder diffraction, DTA and DSC”
Cryst. Res. Technol. 39 (2004) 1020-1023.
4. M. Wildner, D. Stoilova, **M. Georgiev**, V. Karadjova
“Beryllium selenate tetrahydrate, $BeSeO_4 \cdot 4H_2O$: crystal structure and infrared spectroscopy”
J. Mol. Struct. 707 (2004) 123-130.
5. D. Stoilova, **M. Georgiev**, D. Marinova
“Infrared study of the vibrational behavior of CrO_4^{2-} guest ions matrix-isolated in metal (II) sulfates ($Me = Ca, Sr, Ba, Pb$)”
J. Mol. Struct. 738 (2005) 211-215.
6. D. Stoilova, **M. Georgiev**, D. Marinova
“Infrared study of the vibrational behavior of SO_4^{2-} guest ions matrix-isolated in metal (II) chromates ($Me = Sr, Ba, Pb$)”
Vibr. Spectrosc. 39 (2005) 46-49.

7. **M. Georgiev**, D. Stoilova, M. Wildner, V. Karadjova
*“Potassium beryllium selenate dihydrate, $K_2Be(SeO_4)_2 \cdot 2H_2O$:
Preparation, structure and infrared spectroscopy”*
J. Mol. Struct. 752 (2005) 158-165.

8. **M. Georgiev**, M. Wildner, D. Stoilova, V. Karadjova
*“Potassium beryllium sulfate dihydrate, $K_2Be(SO_4)_2 \cdot 2H_2O$:
Crystal structure and infrared spectroscopy”*
J. Mol. Struct. 753 (2005) 104-112.

9. M. Nadoliisky, **M. Georgiev**, D. Nikolova, V. Karadjova
“Dielectric properties of $Be(IO_3)_2 \cdot 4H_2O$ crystals”
J. Mater. Sci. 16 (2005) 667-678.

10. D. Stoilova, **M. Georgiev**, D. Marinova
*“Vibrational behavior of $X'O_4^{2-}$ guest ions matrix-isolated in $MeXO_4$ ($X, X' = S, Se, Cr$;
 $Me = Ca, Sr, Ba, Pb$). Infrared spectroscopic study”*
J. Univ. Chem. Technol. Metall. (Sofia) 40 (2005) 239-246.

11. D. Stoilova, **M. Georgiev**, D. Marinova
*“Infrared spectroscopic study of the vibrational behavior of XO_4^{2-} guest ions matrix-
isolated in $MeXO_4$ ($X = S, Se$; $Me = Sr, Ba, Pb$)”*
Compt. r. Acad. Bulg. Sci. 58 (2005) 1043-1048.

12. **M. P. Georgiev**, D. G. Stoilova, D. M. Marinova, V. A. Karadjova
“Thermal dehydration of the double salts $K_2Be(XO_4)_2 \cdot 2H_2O$ ($X = S, Se$)”
Cryst. Res. Technol. 42 (2007) 54-58.

13. **M. Georgiev**, M. Wildner, D. Stoilova, V. Karadjova
*“Preparation, crystal structure and infrared spectroscopy of the new compound rubidium
beryllium sulfate dihydrate, $Rb_2Be(SO_4)_2 \cdot 2H_2O$ ”*
Vibr. Spectrosc. 44 (2007) 266-272.

14. D. Krastev, B. Stefanov, **M. Georgiev**, B. Jordanov
“About the corrosion and wear resistance behavior of stainless in drying-oven conditions”
 Proceeding of 10th National Conference of Metallurgy with International Participation, 28–31.05.2007, Varna, Bulgaria.
15. **M. Georgiev**, D. Stoilova
Metal – water interactions and hydrogen bond strength”
 J. Univ. Chem. Technol. Metall. (Sofia) 42 (2007) 211-216.
16. **M. Georgiev**, V. A. Karadjova , D. M. Marinova, D. G. Stoilova
“Study of the hydrates of beryllium sulfate and selenate: thermal analysis, X-ray diffraction and infrared spectroscopy”
 J. Univ. Chem. Technol. Metall. (Sofia) 43 (2008) 139-148.
17. D. Stoilova, M. Wildner, D. Marinova, **M. Georgiev**
“Infrared spectroscopic study of SO_4^{2-} ions included in $K_2Me(CrO_4)_2 \cdot 2H_2O$ ($Me = Mg, Cd$) and crystal structure of $K_2Cd(CrO_4)_2 \cdot 2H_2O$ ”
 J. Mol. Struct. 889 (2008) 12-19.
18. D. Stoilova, M. Wildner, D. Marinova, **M. Georgiev**,
“Vibrational behavior of SO_4^{2-} ions included in $K_2Zn(CrO_4)_2 \cdot 2H_2O$ and crystal structure of $K_2Zn(CrO_4)_2 \cdot 2H_2O$: A new structure type containing kröhnkite-type chains”
 J. Mol. Struct. 892 (2008) 239-245.
19. V. Karadjova, **M. Georgiev**, D. Stoilova
“Solubility in the three-component systems $BeSeO_4$ – $MeSeO_4$ – H_2O ($Me = Co, Ni, Cu, Zn$)”
 J. Univ. Chem. Technol. Metall. (Sofia) 43 (2008) 418-423.
20. D. Stoilova, **M. Georgiev**, C. L. Lengauer, M. Wildner, D. Marinova
“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 $K_2Me(CrO_4)_2 \cdot 2H_2O$ ($Me = Co, Ni$)”
 J. Mol. Struct. 920 (2009) 289-296.

21. D. Stoilova, D. Marinova, **M. Georgiev**
“Hydrogen bond strength in chromates with kröhnkite-type chains, $K_2Me(CrO_4)_2 \cdot 2H_2O$ ($Me = Mg, Co, Ni, Zn, Cd$)”
Vibr. Spectrosc. 50 (2009) 245-249.
22. **M. Georgiev**, D. Marinova, D. Stoilova
“Matrix-infrared spectroscopy of SO_4^{2-} ions included in some synthetic selenate and chromate minerals”
J. Univ. Chem. Technol. Metall. (Sofia) 44 (2009) 71-78.
23. D. Marinova, **M. Georgiev**, D. Stoilova
“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”
J. Mol. Struct. 929 (2009) 67-72.
24. **M. Georgiev**, M. Wildner, D. Stoilova
“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 Sci. 11 (2009) 1358-1362.
25. D. Marinova, **M. Georgiev**, D. Stoilova
“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”
J. Mol. Struct. 938 (2009) 179-184.
26. D. Stoilova, D. Marinova, M. Wildner, **M. Georgiev**
“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 Sci. 11 (2009) 244-2050.

27. D. Nikolova, **M. Georgiev**
 “*Synthesis, thermal investigations and kinetic data of $Zn(BF_4)_2 \cdot 6H_2O$* ”
 J. Therm. Anal. Cal. 95 (2009) 319-321.
28. V. Stefanova, R. Miletiev, **M. Georgiev**, D. Borisov
 “*Effect of temperature on the direct conversion of the chemical energy of H_2O_2 to electric*”
 J. Univ. Chem. Technol. Metall. (Sofia) 44 (2009) 389-394.
29. **M. Georgiev**, D. Marinova, D. Stoilova
 “*Infrared spectroscopic study of Tutton compounds. I. Vibrational behavior of SO_4^{2-} ions included in $Me_2 \hat{M}e''(SeO_4)_2 \cdot 6H_2O$ ($Me' = K, NH_4; Me'' = Mg, Co, Ni, Cu, Zn$)*”
 J. Univ. Chem. Technol. Metall. (Sofia) 45 (2010) 75-82.
30. D. Marinova, **M. Georgiev**, D. Stoilova
 “*Vibrational behavior of matrix-isolated ions in Tutton compounds. V. Infrared spectroscopic study of NH_4^+ and SO_4^{2-} ions included in zinc sulfates and selenates*”
 Solid State Sci. 12 (2010) 765-769.
31. **M. Georgiev**, M. Wildner, D. Marinova, D. Stoilova
 “*Preparation, crystal structure and infrared spectroscopy of the new compound $Rb_4Be(SeO_4)_2(HSeO_4)_2 \cdot 4H_2O$* ”
 Solid State Sci. 12 (2010) 899-905.
32. **M. Georgiev**, D. Marinova, D. Stoilova
 “*Vibrational behavior of matrix-isolated ions in Tutton compounds. III. Infrared spectroscopic study of NH_4^+ and SO_4^{2-} ions included in cobalt sulfates and selenates*”
 Vibr. Spectrosc. 53 (2010) 233-238.
33. **M. Georgiev**, D. Marinova, D. Stoilova
 “*Infrared spectroscopic study of Tutton compounds. II. Vibrational behavior of NH_4^+ ions included in $K_2 \hat{M}e''(XO_4)_2 \cdot 6H_2O$ ($Me'' = Mg, Co, Ni, Cu, Zn,; X = S, Se$)*”
 J. Univ. Chem. Technol. Metall. (Sofia) 45 (2010) 195-200.

34. D. Marinova, **M. Georgiev**, D. Stoilova
“*Vibrational behavior of matrix-isolated ions in Tutton compounds. IV. Infrared spectroscopic study of NH_4^+ and SO_4^{2-} ions included in nickel sulfates and selenates*”
Cryst. Res. Technol. 45 (2010) 637-642.
35. R. Miletiev, I. Simeonov, V. Stefanova, **M. Georgiev**
“*Hydrogen peroxide driven world – clean technology research*”
Advances in Energy Engineering International Conference (ICAEE), Technic. Univ.
19-20.06, 2010, Sofia.
36. M. Wildner, V. Karadjova, D. Marinova, **M. Georgiev**, D. Stoilova
“*Crystal and molecular structure of ammonium beryllium sulfate dihydrate $(NH_4)_2Be(SO_4)_2 \cdot 2H_2O$* ”
J. Mol. Struct. 1022 (2012) 117-124.

Научни съобщения с преподавателска насоченост

37. С. Манев, **М. Георгиев**, Х. Чанев, А. Тафров
“*Седмо национално състезание по химия и опазване на околната среда*”, Шумен
Химия 14 (2005) 543-557.
38. С. Манев, **М. Георгиев**, Х. Чанев, А. Тафров
“*Седмо национално състезание по химия и опазване на околната среда*”, Ловеч
Химия 16 (2007) 36-50.