

BIBLIOGRAPHY (1974–2023) OF ACAD. GLIGOR JOVANOVSKI
БИБЛИОГРАФИЈА (1974–2023) НА АКАД. ГЛИГОР ЈОВАНОВСКИ

**I. Papers concerning metal saccharinates
and their complexes with N-donor ligands**

1. Г. Јовановски, А. Николовски, Б. Шоптрајанов, Бипиридински адукти на сахаринатите на бакар, никел и кобалт: инфрацрвени спектри, екстракција и примена при спектрофотометриско определување на сахарин = G. Jovanovski, A. Nikolovski, B. Šoprajanov, Bipyridine adducts of saccharinates of copper, nickel and cobalt: Infrared spectra, extraction and application for spectrophotometric determination of saccharin, 7. Југословенско саветовање "Општа и применета спектроскопија", Ниш, 1978, Зборник, Београд = 7. Yugoslav Symposium "General and Applied Spectroscopy", Niš, 1978, Proceedings, Beograd, 133–138 (1980).
2. G. Jovanovski, B. Kamenar, Two ionic saccharinates: (1a) Sodium saccharinate 2/3 hydrate, $C_7H_4NO_3SNa \cdot 2/3H_2O$; (1b) Magnesium disaccharinate heptahydrate, $(C_7H_4NO_3S)_2Mg \cdot 7H_2O$, *Cryst. Struct. Comm.* 11, 247–255 (1982).
3. B. Kamenar, G. Jovanovski, Manganese(II) saccharinate hexahydrate, $Mn(C_7H_4NO_3S)_2 \cdot 6H_2O$, and isomorphism with the analogous Fe, Co, Ni, Zn and Cd complexes, *Cryst. Struct. Comm.* 11, 257–261 (1982).
4. B. Kamenar, G. Jovanovski, D. Grdenić, Mercury(II) saccharinate, $Hg(C_7H_4NO_3S)_2$, *Cryst. Struct. Comm.* 11, 263–268 (1982).
5. G. Jovanovski, B. Šoprajanov, Spectra-structure correlations in the isomorphous series of metal(II) saccharinates hexahydrates, *J. Mol. Struct.* 143, 159–162 (1986).
6. G. Jovanovski, B. Kamenar, Structural study of some metal saccharinates, 5. *Italian-Yugoslav Crystallographic Congress*, Padova, *Proceedings*, C12 (4 p.) (1986).
7. G. Ferguson, G. Jovanovski, B. Kaitner, B. Kamenar, Crystal structure of chloromercury(II) saccharinate, $C_7H_4ClHgNO_3S$, 5. *Italian-Yugoslav Crystallographic Congress*, Padova, *Proceedings*, C49 (3 p.) (1986).
8. A. Hergold-Brundić, G. Jovanovski, B. Kamenar, Crystal structure of lead(II) saccharinate monohydrate, $Pb(C_7H_4NO_3S)_2 \cdot H_2O$, 5. *Italian-Yugoslav Crystallographic Congress*, Padova, *Proceedings*, C51 (2 p.) (1986).
9. O. Grupče, G. Jovanovski, Polymorphism in thiosaccharin, *Vestn. Slov. Kem. Druš.* 33, 53–54 (1986).
10. Г. Јовановски, Б. Андоновиќ, О. Групче, Препарација и испитување на изоморфизмот кај тиосахаринатите на калциум, стронциум и бариум = G. Jovanovski, B. Andonović, O. Grupče, Preparation and investigation of isomorphysm in thiosaccharinates of calcium, strontium and barium, *X-то Советување на хемичарите и технолозите на Македонија, Скопје, Трудоеви* = X Symposium of Chemists and Technologists of Macedonia, Skopje, *Proceedings*, 94–96, (1987).
11. G. Jovanovski, A. Hergold-Brundić, B. Kamenar, Structure of lead(II) disaccharinate monohydrate, *Acta Crystallogr.* C44, 63–66 (1988).
12. G. Jovanovski, B. Kamenar, G. Ferguson, B. Kaitner, Structure of chloromercury(II) saccharinate, *Acta Crystallogr.* C44, 616–618 (1988).
13. G. Jovanovski, B. Šoprajanov, Bonding of the carbonyl group in metal saccharinates: Correlation with the infrared spectra, *J. Mol. Struct.* 174, 467–472 (1988).
14. A. Hergold-Brundić, B. Kamenar, G. Jovanovski, Structure of the 1:1 complex of mercury(II) saccharinate with bipyridyl, *Acta Crystallogr.* C45, 556–558 (1989).
15. G. Jovanovski, O. Grupče, B. Šoprajanov, The O–H and O–D stretching vibrations in the hydrates of sodium and potassium saccharinate: Spectra-structure correlations, *J. Mol. Struct.* 219, 61–66 (1990).
16. M. Penavić, G. Jovanovski, O. Grupče, Crystal structure of sodium thiosaccharinate monohydrate, *Acta Crystallogr.* C46, 2341–2344 (1990).
17. G. Jovanovski, B. Šoprajanov, B. Kamenar, Spectra-structure correlations in some metal saccharinates, *Bull. Chem. Technol. Macedonia*, 8, 47–66 (1990).

18. M. Penavić, O. Grupče, G. Jovanovski, Crystal structure of potassium thiosaccharinate monohydrate, *Acta Crystallogr.* C47, 1821–1823 (1991).
19. A. Hergold-Brundić, O. Grupče, G. Jovanovski, Structure of bis(2,2'-bipyridyl)(saccharinato-N)copper(II) saccharinate dihydrate, *Acta Crystallogr.* C47, 2659–2660 (1991).
20. E. Kleinpeter, D. Strohl, G. Jovanovski, B. Šoptrajanov, Metal-to-ligand bonding in some metal saccharinates: A ^{13}C NMR study, *J. Mol. Struct.* 246, 185–188 (1991).
21. O. Grupče, G. Jovanovski, B. Šoptrajanov, Monohydrates of the thiosaccharinates of sodium and potassium: Spectra-structure correlations, *J. Mol. Struct.* 267, 197–202 (1992).
22. S. Tančeva, G. Jovanovski, B. Šoptrajanov, Infrared spectra of protiated and deuterated lead(II) saccharinate monohydrate: Spectra-structure correlations, *Spectrosc. Lett.* 25(7), 927–941 (1992).
23. O. Grupče, G. Jovanovski, B. Šoptrajanov, The N–H, N–D and C=S stretching regions in the infrared spectrum of thiosaccharin: Comparison with the spectrum of saccharin, *J. Mol. Struct.* 293, 113–116 (1993).
24. S. Tančeva, G. Jovanovski, B. Šoptrajanov, Infrared spectrum of silver saccharinate: Structural inferences, *Bull. Chem. Technol. Macedonia*, 12, 11–15 (1993).
25. O. Grupče, G. Jovanovski, V. Mirčeski, Spectra-structure correlations in 2,2'-bipyridine mercury(II) saccharinate: Comparison with mercury(II) saccharinate and chloromercury(II) saccharinate, *Spectrosc. Lett.* 27, 691–699 (1994).
26. O. Grupče, M. Penavić, G. Jovanovski, Structural study of thiosaccharin by single crystal X-ray diffraction and infrared spectroscopy, *J. Chem. Crystallogr.* 24, 581–586 (1994).
27. G. Jovanovski, S. Tančeva, B. Šoptrajanov, The SO₂ stretching vibrations in some metal saccharinates: Spectra-structure correlations, *Spectrosc. Lett.* 28, 1095–1109 (1995).
28. G. Jovanovski, D. Spasov, S. Tančeva, B. Šoptrajanov, Structural characteristics of the hydrates of the saccharinates of calcium, strontium and barium, *Acta Chim. Slov.* 43, 41–50 (1996).
29. O. Grupče, G. Jovanovski, V. Mirčeski, Structural characteristics of 2,2'-bipyridine saccharinato complexes with cobalt(II), nickel(II) and zinc(II), *Bull. Chem. Technol. Macedonia*, 15, 87–92 (1996).
30. O. Grupče, G. Jovanovski, Infrared spectra of protiated and deuterated lead(II) 2,2'-bipyridine saccharinate monohydrate, *J. Mol. Struct.* 408/409, 333–336 (1997).
31. Lj. Pejov, G. Jovanovski, O. Grupče, B. Šoptrajanov, The Influence of inherent pseudo Jahn-Teller instability on the stretching vibrations of water molecules in the isomorphous metal(II) saccharinate hexahydrates, *J. Mol. Struct.* 410–411, 365–369 (1997).
32. Lj. Pejov, G. Jovanovski, O. Grupče, B. Šoptrajanov, Infrared investigation of [Cu(sac)₂(H₂O)₄] × 2H₂O - a pseudo Jahn-Teller complex, *Acta Chim. Slovenica*, 44, 197–211 (1997).
33. O. Grupče, G. Jovanovski, Preparation and characterization of mercury(II) thiosaccharinate. Analysis of mercury-to-thiosaccharin bonding character by comparison with mercury(II) saccharinate and mercury(II) chlorosaccharinate, *Anal. Labor.* 7, 9–12 (1998).
34. O. Grupče, G. Jovanovski, B. Šoptrajanov, A. Hergold-Brundić, Structure of bis(2,2'-bipyridyl)(saccharinato-N)copper(II) saccharinate dihydrate. Addendum. *Acta Crystallogr.* C54, 890–891 (1998).
35. G. Jovanovski, P. Naumov, O. Grupče, B. Kaitner, Structural study of monoaquabis(pyridine)bis(saccharinato)copper(II), [Cu(H₂O)(py)₂(sac)₂], *Eur. J. Sol. St. Inorg. Chem.* 35, 231–242 (1998).
36. G. Jovanovski, P. Naumov, O. Grupče, B. Kaitner, Tetraaquabis(pyridine)metal(II) saccharinate tetrahydrate, [M(H₂O)₄(py)₂](sac)₂ × 4H₂O; M = Co, Ni, *Eur. J. Sol. St. Inorg. Chem.* 35, 579–590 (1998).
37. P. Naumov, G. Jovanovski, O. Grupče, Fourier transform infrared study of monoaquabis(pyridine)bis(saccharinato)copper(II): Spectra-structure correlations, *J. Mol. Struct.* 482–483, 121–124 (1999).
38. Lj. Pejov, G. Jovanovski, O. Grupče, B. Šoptrajanov, Anharmonicity of water stretching vibrations in isomorphous metal(II) saccharinates hexahydrates, *J. Mol. Struct.* 482–483, 115–120 (1999).
39. P. Naumov, G. Jovanovski, FT Infrared spectra of binuclear copper(II) imidazole saccharinato complex: Correlation with the structure, *Spectrosc. Lett.* 32, 237–256 (1999).

40. O. Grupče, G. Jovanovski, B. Kaitner, P. Naumov, Structural investigation of di- μ -chloro-bis[saccharinatopyridinemercury(II)] by X-ray diffraction and FT IR spectroscopy, *Croat. Chem. Acta*, 72, 465–476 (1999).
41. G. Jovanovski, A. Hergold-Brundić, O. Grupče, D. Matković-Čalogović, Structure of (2,2'-bipyridine)lead(II) saccharinate monohydrate, *J. Chem. Crystallogr.* 29, 233–237 (1999).
42. P. Naumov, G. Jovanovski, Infrared study of the binuclear cadmium(II) imidazole saccharinato complex: Comparison with the copper(II) compound, *Acta Chim. Slov.* 46, 389–404 (1999).
43. P. Naumov, G. Jovanovski, V. Jordanovska, B. Boyanov, The Thermal decomposition of the pyridine saccharinates of Co, Ni and Cu: A correlation of the structural and the infrared data, *J. Serb. Chem. Soc.* 64, 609–620 (1999).
44. P. Naumov, G. Jovanovski, Synthesis and comparative vibrational study of two novel cesium saccharinates: Spectroscopic evidence for a saccharin adduct, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 27–30 (1999).
45. P. Naumov, G. Jovanovski, Vibrational Studies of the Imidazole and Pyridine Adducts of Metal(II) Saccharinates. I. The OH/OD and NH/ND Stretching Regions of the Cobalt(II) and Nickel(II) Complexes, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 63–66 (1999).
46. P. Naumov, G. Jovanovski, S. Abbrent, L.-E. Tergenius, Thermal Behavior of the Saccharinates of K, Na, Rb, Cs and NH₄, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 67–70 (1999).
47. P. Naumov, O. Grupče, G. Jovanovski, Raman Spectrum of the Binuclear Copper(II) Imidazole Saccharinato Complex, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 71–74 (1999).
48. O. Grupče, G. Jovanovski, B. Kaitner, Structural Study of Cadmium Complexes with 2,2'bipyridine and Saccharin, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 55–58 (1999).
49. G. Jovanovski, Metal saccharinates and their complexes with N-donor ligands, *Croat. Chem. Acta*, 73, 843–868 (2000).
50. P. Naumov, G. Jovanovski, On the geometry of the saccharinato ligand/ion in the metal saccharinates: Crystallographic survey and theoretical study, *Struct. Chem.* 11, 19–33 (2000).
51. P. Naumov, G. Jovanovski, Vibrational study and spectra-structure correlations in ammonium saccharinate: Comparison with the alkali saccharinates, *Spectrochim. Acta A*, 56, 1305–1318 (2000).
52. P. Naumov, O. Grupče, G. Jovanovski, Experimental and theoretical Raman study of the binuclear copper(II) imidazole saccharinato complex, *J. Raman Spectrosc.* 31, 475–479 (2000).
53. P. Naumov, G. Jovanovski, Vibrational studies of the solid imidazole and pyridine adducts of metal(II) saccharinates. I. The OH/OD and NH/(ND) stretching regions of the cobalt(II) and nickel(II) complexes, *Sol. St. Scien.* 2, 249–256 (2000).
54. A. Čahil, G. Jovanovski, O. Grupče, Isomorphism in the thiosaccharinates of Mg, Co(II), Ni(II) and Zn(II): Comparison with the analogous metal saccharinates, *Bull. Chem. Technol. Macedonia*, 19, 9–16 (2000).
55. P. Naumov, G. Jovanovski, S. Abbrent, L.-E. Tergenius, Thermal behaviour of the saccharinates of K⁺, Na⁺, Rb⁺, Cs⁺ and NH₄⁺: Structural inferences, *Thermochim. Acta*, 359, 123–130 (2000).
56. P. Naumov, G. Jovanovski, Vibrational study of two novel cesium saccharinates. Spectroscopic evidence for organic molecule embedded in ionic salt, *Vib. Spectrosc.* 24, 201–211 (2000).
57. P. Naumov, G. Jovanovski, On the coordination in metal saccharinates, *J. Coord. Chem.* 54, 63–79 (2001).
58. P. Naumov, G. Jovanovski, Outer-sphere coordination, N-coordination and O-coordination of the deprotonated saccharin in copper(II) saccharinato complexes. Implications for the saccharinato carbonyl stretching frequency, *Inorg. Chim. Acta*, 314, 154–162 (2001).
59. P. Naumov, G. Jovanovski, Spectra-structure correlations in solid metal saccharinates. I. The carbonyl stretchings, *J. Mol. Struct.* 563–564, 335–339 (2001).

60. P. Naumov, G. Jovanovski, A. Todorovska, Vibrational studies of the solid imidazole and pyridine adducts of metal(II) saccharinates. II. Mn(II) and Fe(II) imidazole saccharinates, *J. Mol. Struct.* 563–564, 341–345 (2001).
61. P. Naumov, V. Jordanovska, O. Grupče, B. Boyanov, G. Jovanovski, Thermal behaviour of the *N*-donor adducts of metal saccharinates. I. 2,2'-bipyridine saccharinato complexes of Co(II), Ni(II), Cu(II), Zn(II) and Pb(II), *J. Therm. Anal. Cal.* 65, 59–67 (2001).
62. P. Naumov, V. Jordanovska, O. Grupče, B. Boyanov, G. Jovanovski, Thermal behaviour of the *N*-donor adducts of metal saccharinates. II. 1,10-phenanthroline saccharinato complexes of Co(II), Ni(II), Cu(II), Zn(II) and Pb(II), *J. Therm. Anal. Cal.* 65, 871–880 (2001).
63. P. Naumov, G. Jovanovski, An update to the combined vibrational-diffraction experimental and theoretical studies of small biologically important cyclic imides: Reference to saccharin, *Curr. Org. Chem.* 5, 1059–1077 (2001).
64. P. Naumov, V. Jordanovska, B. Boyanov, G. Jovanovski, Thermal behaviour of the *N*-donor adducts of metal saccharinates. III. Imidazole saccharinates of Co(II), Ni(II) and Cd(II), *J. Therm. Anal. Cal.* 66, 469–477 (2001).
65. P. Naumov, G. Jovanovski, S.-Z. Hu, I.-H. Suh, I. A. Razak, S. Chantrapromma, H.-K. Fun, S. W. Ng, On the short carbonyl bond in bis[μ -1,2-benzisothiazol-3(2H)-one1,1-dioxido- k^2N :O]{bis[1,2-benzisothiazol-3(2H)-one1,1-dioxido- kN]-bis(imidazole)copper(II)}, *Acta Crystallogr.* C57, 1016–1019 (2001).
66. O. Grupče, G. Jovanovski, B. Kaitner, P. Naumov, Monoaquabis(2,2'-bipyridine)saccharinatozinc(II) saccharinate. I. Structural study by single crystal X-ray diffraction, FT IR spectroscopy and DS calorimetry, *J. Struct. Chem.* 42, 926–934 (2001).
67. S. Cakir, P. Naumov, I. Bulut, E. Bicer, O. Cakir, G. Jovanovski, I. A. Razak, S. Chatrapromma, H.-K. Fun, S. W. Ng, Diaquabis(nicotinamide)bis(*o*-sulfobenzimidato-*N*)cadmium(II), *Acta Crystallogr.* E57, m431–m432 (2001).
68. P. Naumov, G. Jovanovski, J. V. Hanna, I. A. Razak, S. Chantrapromma, H.-K. Fun, S. W. Ng, Diaqua-bis(4,4'-bipyridine)copper(II) di(*o*-sulfobenzimidate) dichloromethane solvate, a two-dimensional $Cu_4(4,4'-C_5H_4NC_5H_4N)_4$ rhombic grid clathrating guest dichloromethane, *Inorg. Chem. Commun.* 4, 766–768 (2001).
69. P. Naumov, G. Jovanovski, A. Todorovska, Vibrational studies of the solid imidazole and pyridine adducts of metal(II) saccharinates. III. Zn and Hg(II) imidazole saccharinates, *Spectrochim. Acta A*, 58, 1903–1910 (2002).
70. P. Naumov, G. Jovanovski, Y. Ohashi, Spectra-structure correlations in solid saccharinates. II. *Ab initio* molecular structures and vibrational spectra of *N*-substituted saccharins at the HF Level, *Sol. St. Scien.* 4, 271–283 (2002).
71. P. Naumov, G. Jovanovski, S. W. Ng, Aquabis(2,4'-bipyridine)di(*o*-sulfobenzimidato)copper(II) at 95 K, *Acta Crystallogr.* E58, m16–m17 (2002).
72. H. Icbudak, P. Naumov, M. Ristova G. Jovanovski, Structural studies of bis(*o*-sulfobenzimidato)praseodymium(III) chloride hexahydrate, *J. Mol. Struct.* 606, 77–86 (2002).
73. P. Naumov, S. Cakir, I. Bulut, E. Bicer, O. Cakir, G. Jovanovski, A. R. Ibrahim, A. Usman, H.-K. Fun, S. Chantrapromma, S. W. Ng, Crystal structure of di(saccharinato-*O*)lead(II)nicotinamide hemihydrate, *Main Group Metal Chem.* 25, 175–176 (2002).
74. P. Naumov, G. Jovanovski, M. Ristova, I. A. Razak, S. Cakir, S. Chantrapromma, H.-K. Fun, S. W. Ng, Coordination of deprotonated saccharin in copper(II) complexes. Structural role of the saccharinate directed by the ancillary N-heterocyclic ligands, *Z. Anorg. Allg. Chem.* 628, 2930–2939 (2002).
75. G. Jovanovski, O. Grupče, Vibrational study and spectra-structure correlations in mercury(II) chlorosaccharinate, *Bull. Chem. Technol. Maced.* 21, 117–124 (2002).
76. H. Icbudak, H. Olmez, O. K. Yesilil, F. Arslan, P. Naumov, G. Jovanovski, A. R. Ibrahim, A. Usman, H.-K. Fun, S. Chantrapromma, S. W. Ng, Syntheses, characterization and crystal structure of a novel amine adducts of metal saccharinates, orotates and salicilates, *J. Mol. Struct.* 657, 255–270 (2003).
77. G. Jovanovski, B. Kaitner, O. Grupče, P. Naumov, Crystal structure, infrared and Raman spectra of tripotassium trisaccharinate dihydrate, $K_3(C_7H_4NO_3S)_3 \times 2H_2O$, *Cent. Eur. J. Chem.* 2, 254–275 (2004).

78. P. Naumov, G. Jovanovski, O. Grupče, B. Kaitner, D. A. Rae, S. W. Ng, Solid-state structure and temperature/evacuation-induced dehydration of sodium saccharinate 1.875 hydrate, *Angew. Chem. Int. Ed.* 44, 1251–1254 (2005).
79. G. Jovanovski, A. Čahil, O. Grupče, Lj. Pejov, Vibrational analysis of thiosaccharin and thiosaccharinate anion. A gradient-corrected density functional and experimental study, *J. Mol. Struct.* 784, 7–17 (2006).
80. P. Naumov, G. Jovanovski, S. Tančeva, S. W. Ng, Crystal structure and spectroscopic characterization of lithium saccharinate 11/6 hydrate, hygroscopic and potentially physiologically active compound, *Z. Anorg. Allg. Chem.* 632, 454–460 (2006).
81. P. Naumov, G. Jovanovski, K. Sakurai, Thermally induced saccharinate ligand flips in single crystals of bis(imidazole)bis(saccharinato)copper(II) close to ambient temperature, *Crys. Grow. Des.* 6, 815–817 (2006).
82. G. Jovanovski, A. Čahil, O. Grupče, Infrared spectra of thiosaccharinates of cadmium and lead. Comparison with the analogous metal saccharinates, *Contributions, Sec. Math. Tech. Sci., MASA*, 27/28, 15–27 (2006/2007).
83. Lj. Pejov, G. Jovanovski, O. Grupče, B. Šoptrajanov, Anharmonicity of water stretching vibrations in series of isomorphous crystalline hydrates. Copper and manganese saccharinates hexahydrates, *Spectrochim. Acta A*, 66, 419–426 (2007).
84. P. Naumov, Lj. Pejov, G. Jovanovski, T. Stafilov, M. Taseska, E. Stojanovska, Unilateral exclusion of Jahn-Teller-inactive $d^5 \text{Mn}(\text{H}_2\text{O})_4(\text{C}_7\text{H}_4\text{NO}_3\text{S})_2^{2+}$ guests by strongly distorted host $d^9 \text{Cu}(\text{H}_2\text{O})_4(\text{C}_7\text{H}_4\text{NO}_3\text{S})_2^{2+}$ lattice, *Crys. Grow. Des.* 8, 1319–1326 (2008).
85. G. Jovanovski, P. Makreski, B. Šoptrajanov, Vibrational study and spectra–structure correlations in magnesium disaccharinate heptahydrate, $\text{Mg}(\text{sac})_2 \cdot 7\text{H}_2\text{O}$, *Maced. J. Chem. Chem. Eng.*, 27, 1–8 (2008).
86. F. Quentel, K. Stankoska, O. Grupče, G. Jovanovski, V. Mirčeski, Electrochemistry of saccharinate anion at liquid interfaces, *Electrochim. Commun.* 13, 1476–1478 (2011).
87. G. Jovanovski, Crystallography in Macedonia – Collaboration of Macedonian and Croatian Crystallographers. *Scientific Conference "Crystallography in Croatia", on the occasion of the 20th anniversary of the Croatian Crystallographic Association, Zagreb, Book of Papers*, 43–53, (2013).
88. D.P. Karothu, I. Jahović, G. Jovanovski, B. Kaitner, P. Naumov, Ionic Cocrystals of Molecular Saccharin, *Crystal Engin. Commun.*, 19, 30, 4338–4344 (2017).
89. L. Pejov, G. Jovanovski, M. Najdoski, Spectroscopic evidence for characteristic hydrogen bonding pattern in a system with pseudo-Jahn-Teller effect: the chromium(II) saccharinate hexahydrate, *Spectrosc. Lett.*, 53, 6, 466–475 (2020).
90. D. Vušak, G. Jovanovski, D. Matković-Čalogović, Mechanochemical Synthesis of Alkaline Earth Mg – Ba Saccharinates. Connectivity in the Crystal Structures of $\text{Mg}(\text{sac})_2 \cdot 7\text{H}_2\text{O}$, $\text{Ca}(\text{sac})_2 \cdot 7\text{H}_2\text{O}$ and $\text{Ba}(\text{sac})_2 \cdot 4.5\text{H}_2\text{O}$ (sac = saccharinate), *Croat. Chem. Acta*, 95, [67]–176 (2022).

II. Papers concerning minerals from the Republic of Macedonia

91. M. Trajkovska, B. Šoptrajanov, G. Jovanovski, T. Stafilov, Vibrational Spectra of some sulfide minerals from Alšar, *J. Mol. Struct.*, 267, 191–196 (1992).
92. B. Šoptrajanov, M. Trajkovska, I. Gržetić, G. Jovanovski, T. Stafilov, Infrared spectra of $\text{M}^{\text{I}}_3\text{M}^{\text{III}}\text{S}_3$ type synthetic minerals ($\text{M}^{\text{I}} = \text{Tl}$ or Ag , $\text{M}^{\text{III}} = \text{As}$ or Sb), *N. Jb. Miner. Abh.*, 166/1, 83–89 (1993).
93. M. Trajkovska, B. Šoptrajanov, T. Stafilov, G. Jovanovski, Determination of lorandite and realgar in mineral mixtures using infrared spectroscopy, *Geol. Maced.*, 7, 55–59 (1993).
94. B. Šoptrajanov, M. Trajkovska, G. Jovanovski, T. Stafilov, Infrared spectra of lorandite and some other minerals from Allchar, *N. Jb. Miner. Abh.*, 167, 329–337 (1994).

95. B. Šoptrajanov, M. Trajkovska, T. Stafilov, G. Jovanovski, I. Gržetić, Infrared spectra of three $M^I M^{III} S_2$ type synthetic minerals ($M^I = Ag$ or Tl , $M^{III} = Sb$ or As), *Spectrosc. Lett.*, 30, 79–87 (1997).
96. G. Jovanovski, V. Stefov, B. Jovanovski, B. Šoptrajanov, B. Kaitner, Minerals from Macedonia: I. Analytical application of powder X-ray diffraction patterns of calcite and aragonite, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 43–46, (1999).
97. В. Стефов, С. Димитровска, Г. Јовановски, Б. Шоптрајанов, Минерали од Македонија: II. Вибрациони спектри на некои сулфатни минерали = V. Stefov, S. Dimitrovska, G. Jovanovski, B. Šoptrajanov, Minerals from Macedonia: II. Vibrational spectra of some sulfate minerals, *16. Конгрес на хемичарите и технолозите на Македонија, Скопје, Книга на трудови = 16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 47–50, (1999).
98. Б. Шоптрајанов, В. Стефов, И. Кузмановски, Г. Јовановски, Фурие трансформни инфрацрвени спектри на некои фосфатни минерали, *16. Конгрес на хемичарите и технолозите на Македонија, Скопје, Книга на трудови*, 103–106, (1999).
99. B. Šoptrajanov, V. Stefov, I. Kuzmanovski, G. Jovanovski, Fourier-transform infrared spectra of some phosphate minerals, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 103–106, (1999).
100. G. Jovanovski, V. Stefov, B. Jovanovski, B. Šoptrajanov, B. Boev, Minerals from Macedonia. III. Determination of calcite and aragonite in mineral mixtures using FT IR spectroscopy, *Geol. Maced.*, 13, 69–74 (1999).
101. V. Stefov, G. Jovanovski, B. Šoptrajanov, B. Minčeva-Šukarova, S. Dimitrovska, B. Boev, Minerals from Macedonia. V. Characterization of gypsum, barite and their synthetic analogues by FTIR and Raman spectroscopy, *Geol. Maced.*, 14, 61–66 (2000).
102. P. Makreski, G. Jovanovski, V. Stefov, B. Minčeva-Šukarova, B. Kaitner, B. Boev, Minerals from Macedonia. VI. Separation and identification of some sulfide minerals, *Geol. Maced.*, 15–16, 43–50 (2001–2002).
103. G. Jovanovski, B. Minčeva Šukarova, P. Makreski, B. Šoptrajanov, W. P. Griffith, R. L. Willis, Minerals from Macedonia: VII. Raman spectra of sulfide minerals from the Allchar deposite (stibnite, realgar, orpiment and lorandite), *Eighteenth International Conference of Raman Spectroscopy, Proceedings*, 931–932, Budapest (2002).
104. G. Jovanovski, B. Minčeva Šukarova, P. Makreski, V. Stefov, W. P. Griffith, R. L. Willis, Minerals from Macedonia: VIII. Raman spectra of some sulfide minerals from the localities in Eastern Macedonia, *Eighteenth International Conference of Raman Spectroscopy, Proceedings*, 933–934, Budapest (2002).
105. B. Boev, V. Bermanec, T. Serafimovski, S. Lepitkova, S. Mikulčić, M. Šourek, G. Jovanovski, T. Stafilov, M. Najdoski, Allchar mineral assemblage, *Geol. Maced.*, 15–16, 1–23 (2001–2002).
106. G. Jovanovski, V. Stefov, B. Šoptrajanov, B. Boev, Minerals from Macedonia. IV. Discrimination between some carbonate minerals by FTIR spectroscopy, *N. Jh. Miner. Abh.*, 177, 241–253 (2002).
107. P. Makreski, V. Zajkova Paneva, G. Jovanovski, T. Stafilov, D. Zendelovska, AAS and AES-ICP determination of trace elements in some iron minerals, *3rd Aegean Analytical Chemistry Days, Proceedings*, 440–443, Polihnitos, Lesbos (2002).
108. B. Minceva-Sukarova, G. Jovanovski, P. Makreski, B. Soptrajanov, W. Griffith, R. Willis, I. Grzetic, Vibrational spectra of $M^I M^{III} S_2$ type synthetic minerals ($M^I = Tl$ or Ag and $M^{III} = As$ or Sb), *J. Mol. Struct.*, 651–653, 181–189 (2003).
109. P. Makreski, G. Jovanovski, Minerals from Macedonia. IX. Distinction between some rhombohedral carbonates by FT IR spectroscopy, *Bull. Chem. Technol. Maced.*, 22, 25–32 (2003).
110. G. Jovanovski, B. Boev, P. Makreski, M. Najdoski, G. Mladenovski, Minerals from Macedonia. XI. Silicate varieties and their localities – identification by FT IR spectroscopy, *Bull. Chem. Technol. Maced.*, 22, 111–141 (2003).
111. P. Makreski, G. Jovanovski, B. Minčeva-Šukarova, B. Šoptrajanov, A. Green, B. Engelen, I. Gržetić, Vibrational spectra of $M^{I_3} M^{III} S_3$ type synthetic minerals ($M^I = Tl$ or Ag and $M^{III} = As$ or Sb), *Vib. Spectrosc.*, 35, 59–66 (2004).

112. P. Makreski, G. Jovanovski, B. Kaitner, T. Stafilov, B. Boev, D. Cibrev, Minerals from Macedonia. X. Separation and identification of some oxide minerals by FT IR spectroscopy, AAS, EAS-ICP and powder XRD, *N. Jh. Miner. Abh.*, 180, 215–243 (2004).
113. P. Makreski, G. Jovanovski, T. Stafilov, B. Boev, Minerals from Macedonia. XII. The dependance of quartz and opal color on trace element composition – AAS, FT IR and micro-Raman spectroscopy study, *Bull. Chem. Technol. Maced.*, 23, 171–184 (2004).
114. P. Makreski, G. Jovanovski, S. Stojančeska, Minerals from Macedonia. XIII. Vibrational spectra of some commonly appearing nesosilicate minerals, *J. Mol. Struct.*, 744–747, 79–92 (2005).
115. P. Makreski, G. Jovanovski, S. Dimitrovska, Minerals from Macedonia. XIV. Identification of some sulfate minerals by vibrational (infrared and Raman) spectroscopy, *Vib. Spectrosc.*, 39, 229–239 (2005).
116. M. Taseska T. Stafilov, P. Makreski, G. Jovanovski, Determination of trace elements in some copper minerals by atomic absorption spectrometry, *Ovidius University Annals of Chemistry*, 16, 43–46 (2005).
117. B. Boev, G. Jovanovski, P. Makreski, V. Bermanec, Minerals from Macedonia. XV. Sivec mineral assemblage, *Geol. Maced.*, 19, 39–56 (2005).
118. R. Jaćimović, P. Makreski, V. Stibilj, T. Stafilov, G. Jovanovski, Characterization of some iron minerals from Republic of Macedonia using instrumental neutron activation analysis, *Geol. Maced.*, 19, 33–38 (2005).
119. G. Jovanovski, P. Makreski, B. Šoptrajanov, B. Kaitner, B. Boev, Minerals from Macedonia. Complementary use of vibrational spectroscopy and powder X-ray diffraction for identification and detection purposes, *Contributions, Sec. Math. Tech. Sci. MASA*, 26, 7–84 (2005).
120. P. Makreski, G. Jovanovski, A. Gajović, Minerals from Macedonia. XVII. Vibrational spectra of common appearing amphibole minerals, *Vib. Spectrosc.*, 40, 98–109 (2006).
121. P. Makreski, G. Jovanovski, A. Gajović, T. Biljan, D. Angelkovski, R. Jaćimović, Minerals from Macedonia. XVI. Vibrational spectra of some common appearing pyroxene and pyroxenoids, *J. Mol. Struct.*, 788, 102–114 (2006).
122. M. Taseska T. Stafilov, P. Makreski, R. Jaćimović, V. Stibilj, G. Jovanovski, Liquid-liquid extraction and determination of trace elements in iron minerals by atomic absorption spectrometry, *Geol. Maced.*, 20, 33–38 (2006).
123. P. Makreski, G. Jovanovski, B. Kaitner, A. Gajović, T. Biljan, Minerals from Macedonia. XVIII. Vibrational spectra of some sorosilicates, *Vib. Spectrosc.*, 44, 162–170 (2007).
124. V. Šontevska, G. Jovanovski, P. Makreski, Minerals from Macedonia. XIX. Vibrational spectroscopy as identificational tool for some sheet silicate minerals, *J. Mol. Struct.*, 834–836, 318–327 (2007).
125. P. Naumov, P. Makreski, G. Jovanovski, Direct atomic-scale observation of linkage isomerization of As₄S₄ clusters during the photoinduced transition of realgar to pararealgar, *Inorg. Chem.*, 46, 10624–10631 (2007).
126. R. Jaćimović, M. Taseska, V. Stibilj, P. Makreski, T. Stafilov, G. Jovanovski, Element composition of some copper minerals from the Republic of Macedonia, *Geol. Maced.*, 21, 87–91 (2007).
127. P. Makreski, G. Jovanovski, Minerals from Macedonia. XXII. Laser-induced fluorescence bands in the FT-Raman spectrum of almandine mineral, *J. Raman Spectrosc.*, 39, 1210–1213 (2008).
128. V. Šontevska, G. Jovanovski, P. Makreski, A. Raškovska, B. Šoptrajanov, Minerals from Macedonia. XXI. Vibrational spectroscopy as identificational tool for some phyllosilicate minerals, *Acta Chim. Slov.*, 55, 757–766 (2008).
129. M. Taseska, P. Makreski, V. Stibilj, R. Jaćimović, T. Stafilov, G. Jovanovski, Determination of trace elements in chalcopyrite (CuFeS₂) by k_0 -instrumental neutron activation analysis after matrix elements removal, *Macedonian J. Chem. Eng.*, 27, 141–147 (2008).
130. P. Makreski, R. Jaćimović, V. Stibilj, T. Stafilov, G. Jovanovski, The elemental composition of some iron minerals from Macedonia using neutron activation analysis, *Radiochim. Acta*, 96, 855–861 (2008).
131. Г. Јовановски, Атоми, молекули, кристали и минерали = G. Jovanovski, Atoms, molecules, crystals and minerals, *Пристанни предавања, прилози и библиографија на новите членови на Македонската академија на науките и уметностите* = Opening Addresses, Contributions and Bibliography of the new members of the Macedonian Academy of Sciences and Arts, XVI, 57–113 (2008).

132. P. Makreski, G. Jovanovski, Minerals from Macedonia. XXIII. Spectroscopic and structural characterization of schorl and beryl cyclosilicates, *Spectrochim. Acta A*, 73, 460–467 (2009).
133. G. Jovanovski, P. Makreski, B. Kaitner, B. Boev, Silicate minerals from Macedonia. Complementary use of vibrational spectroscopy and X-ray powder diffraction for identification and detection purposes, *Croat. Chem. Acta*, 82, 363–386 (2009). Erratum, *Croat. Chem. Acta*, 85, CCXI–CCXIII (2012).
134. B. Boev, G. Jovanovski, P. Makreski, Minerals from Macedonia. XX. Geological setting, lithological rock types and identification of the minerals from Ržanovo Fe–Ni deposit, *Turkish J. Earth Sci.*, 18, 631–652 (2009).
135. Makreski, G. Jovanovski, B. Kaitner, Minerals from Macedonia. XXIV. Spectra-structure characterization of tectosilicates, *J. Mol. Struct.*, 924–926, 413–419 (2009).
136. G. Jovanovski, P. Makreski, B. Kaitner, B. Šoptrajanov, Minerals from Macedonia. X-ray powder diffraction vs. vibrational spectroscopy in mineral identification, *Contributions, Sec. Math. Tech. Sci., MASA*, 30, 1–2, 7–34 (2009).
137. M. Tasevska, R. Jaćimović, V. Stibilj, T. Stafilov, P. Makreski, G. Jovanovski, Is copper removal by electrolysis from copper minerals appropriate method for determination of trace elements?, *Nucl. Instr. Meth. Phys. Res., A*, 622, 449–452 (2010).
138. P. Naumov, P. Makreski, Gj. Petruševski, T. Runčevski, G. Jovanovski, Visualization of a discrete solid-state process with steady-state X-ray diffraction: observation of hopping of sulfur atoms in single crystals of re-algar, *J. Am. Chem. Soc.*, 132, 11398–11401 (2010).
139. P. Makreski, T. Runčevski, G. Jovanovski, Minerals from Macedonia. XXVI. Characterization and spectra–structure correlations for grossular and uvarovite. Raman study supported by IR spectroscopy, *J. Raman Spectrosc.*, 42, 72–77 (2011).
140. N. Stamatovska, P. Makreski, Lj. Pejov, G. Jovanovski, Minerals from Macedonia. XXVII. Theoretical and experimental study of the vibrational spectra of endemic nežilovite, *J. Mol. Struct.*, 993, 104–108 (2011).
141. P. Makreski, G. Jovanovski, T. Runčevski, R. Jaćimović, Simple and efficient method for detection of traces of rare earth elements in minerals by Raman spectroscopy, *Maced. J. Chem. Chem. Eng.*, 30, 241–250 (2011).
142. G. Jovanovski, B. Boev, P. Makreski, Minerals from the Republic of Macedonia with an introduction to mineralogy, *Українсько–Македонський науковий збірник*, 5, 305–326, Київ (2011).
143. M. Taseska, R. Jaćimović, V. Stibilj, T. Stafilov, P. Makreski, G. Jovanovski, Determination of trace elements in some minerals by k_0 -instrumental neutron activation analysis, *Appl. Rad. Isot.*, 70, 35–39 (2012).
144. B. Boev, G. Jovanovski, P. Makreski, Geology and mineralogy of Allchar Sb-As-Ti-Au Deposit, *Geol. Maked.*, 3, 215–232 (2012).
145. P. Makreski, S. Jovanovski, Lj. Pejov, G. Kloess, H.-J. Hoebler, G. Jovanovski, Theoretical and experimental study of the vibrational spectra of sarkinit, $Mn_2(AsO_4)(OH)$ and adamite, $Zn_2(AsO_4)(OH)$, *Spectrochim. Acta A*, 113, 37–42 (2013).
146. P. Makreski, G. Petruševski, S. Ugarković, G. Jovanovski, Laser-induced transformation of stibnite (Sb_2S_3) and other structurally related salts, *Vib. Spectrosc.*, 68, 177–182 (2013).
147. P. Makreski, G. Jovanovski, B. Boev, Micro-Raman spectra of extremely rare and endemic Tl-sulfosalts from Allchar deposit, *J. Raman spectrosc.*, 45, 610–617 (2014).
148. Z. Bujňáková, P. Baláž, P. Makreski, G. Jovanovski, M. Čaplovičová, L. Čaplovič, O. Shpotyuk, A. Ingram, T-C. Lee, J-J. Cheng, J. Sedláček, E. Turianicová and A. Zorkovská, Arsenic sulfide nanoparticles prepared by milling: Properties, free-volume characterization and anti-cancer effects, *J. Mater. Sci.*, 50, 1973–1985 (2015).
149. P. Makreski, S. Stefov, Lj. Pejov, G. Jovanovski, Theoretical and experimental study of the vibrational spectra of (para)symplesite, $Fe_3(AsO_4)_2 \cdot 8H_2O$ and hörnésite, $Mg_3(AsO_4)_2 \cdot 8H_2O$, *Spectrochim. Acta A* 144, 155–162 (2015).
150. P. Makreski, S. Jovanovski, Lj. Pejov, Gj. Petruševski, S. Ugarković, G. Jovanovski, Theoretical and experimental study of the vibrational spectra of liroconite, $Cu_2Al(AsO_4)(OH)_4 \cdot 4H_2O$ and bayldonite, $Cu_3Pb[O(AsO_3OH)_2(OH)_2]$, *Vibr. Spectrosc.*, 79, 36–43 (2015).

151. T. Runčevski, R.E. Dinnebier, P. Makreski, G. Jovanovski, The Crystal Structure of Symplesite, *Z. Anorg. Allg. Chem.*, 641, 1207–1210 (2015).
152. P. Makreski, G. Jovanovski, Minerals from Macedonia. XXX. Complementary use of vibrational spectroscopy and X-ray powder diffraction for spectra-structural study of some cyclo-, phyllo- and tectosilicate minerals: a review, *Maced. J. Chem. Chem. Eng.*, 35, 125–155 (2016).
153. P. Makreski, S. Stefov, Lj. Pejov, G. Jovanovski, Minerals from Macedonia. XXIX. Experimental and theoretical study of the vibrational spectra of extremely rare Tl-sulfate mineral from Allchar – Dorallcharite, *Vibr. Spectrosc.*, 89, 85–91(2017).
154. P. Makreski, J. Todorov, V. Makrievski, Lj. Pejov, G. Jovanovski, Vibrational spectra of the rare-occurring complex hydrogen arsenate minerals pharmacolite, picropharmacolite, and vladimirite: Dominance of Raman over IR spectroscopy to discriminate arsenate and hydrogen arsenate units, *J. Raman spectrosc.*, 49, 4, 747–763 (2018).
155. П. Макрески, Г. Јовановски, Лорандитот од Алшар, *Штум*, X, 108, 54–55 (2018).
156. R. Jaćimović M. Taseska-Gjorgijevski, T. Stafilov, G. Jovanovski, P. Makreski, Application of k0-instrumental neutron activation analysis for determination of major and trace elements in some manganese minerals, *Geol. Maced.*, 32, 2, [159]–164 (2018).
157. P. Makreski, J. Todorov, G. Jovanovski, M. Stojanovska, G. Petrushevski, Depicting the dehydration and dehydroxylation processes in very-rare hydrogen arsenate minerals : synergistic approach by thermogravimetry and temperature controlled ATR-FTIR spectroscopy, *J. Therm. Anal. Cal.*, 135, 4, 2265–2276 (2019).
158. G. Jovanovski, B. Boev... [et al.], Intriguing minerals: lorandite, TlAsS₂, a geochemical detector of solar neutrinos, *ChemTexts*, 5, 3, article 12 (5 p.) (2019).
159. A. A. Reka, ... B. Boev ... [et al.], G. Jovanovski, P. Makreski, Chemical, mineralogical and structural features of native and expanded perlite from Macedonia, *Geol. Croat.*, 72, 3, [215]–221 (2019).
160. G. Jovanovski, P. Makreski, Intriguing minerals: Photoinduced solid-state transition of realgar to pararealgar - Direct atomic scale observation and visualization, *ChemTexts*, 6, 1, article 5 (2020).
161. Г. Јовановски, Б. Боев, В. Матевски, Т. Страфилов, П. Макрески, И. Боев, Митот и вистината за Алшар и лорандитот, *Економски медитации : зборник на трудови по повод 70 години од раѓањето на Таки Фити*, [уред. Г. Петрески], МАНУ, Скопје, [579]–617 (2020).
162. T. Stafilov, B. Boev, P. Makreski, I. Boev, G. Jovanovski, [Chapter 1]. Neutrino Detection by Thallium Mineral Lorandite, *Neutrinos : Beyond the Basics*, edit. N. A. Stewart, Nova Science Publishers, New York, (Physics Research and Technology), 1–38 (2021).
163. A.A. Reka ... [et al.], G. Jovanovski, P. Makreski, A. Oral, Diatomaceous earth: Characterization, thermal modification, and application, *Open Chemistry* [El. resource], 19, 1, 451–461 (2021).
164. M. Jeršek, G. Jovanovski, B. Boev, P. Makreski, Intriguing minerals: corundum in the world of rubies and sapphires with special attention to Macedonian rubies, *ChemTexts : the Textbook Journal of Chemistry* [El. resource], 7, 3, article 19 (2021).
165. A.A. Reka ... [et al.], G. Jovanovski, P. Makreski, Diatomite – Evaluation of physico-mechanical, chemical, mineralogical and thermal properties, *Geologica Macedonica*, 35, 5–14 (2021).
166. G. Jovanovski, T. Šijakova-Ivanova, I. Boev, B. Boev, P. Makreski, Intriguing minerals: quartz and its polymorphic modifications, *ChemTexts : the Textbook Journal of Chemistry* [El. resource], 8, 3 article 14 (2022).
167. L. Stojanov, H. Vasilevski, P. Makreski, G. Jovanovski, V. Mirceski, Voltammetry of Solid Microparticles of Some Common Iron and Copper-Iron Sulfide Minerals, *International Journal of Electrochemical Science*, 17, 3 article 220346 (2022).
168. A. A. Reka, D. Kosanović ... G. Jovanovski ... [et al.], Fabrication of ceramic monoliths from diatomaceous earth: Effects of calcination temperature on silica phase transformation, *Science of Sintering*, 54, 4, [495]–506 (2022).
169. P. Makreski ... [et al.], B. Boev, G. Jovanovski, The restored opus sectile panel from the luxurious episcopal residence in the ancient city of Stobi–mineralogical and chemical findings, *Archaeometry*, 65, 3, 498–514 (2023).

III. Other papers

170. D. Grdenić, B. Kamenar, B. Korpar-Čolig, M. Sikirica and G. Jovanovski, Tetrakis(trifluoroacetoxymercuri)methane and tetrakis(acetoxymercuri)methane as the reaction products of Hofmann's base with the corresponding acid: X-ray crystallographic evidence, *J. Chem. Soc., Chem. Comm.* 646–647 (1974).
171. Б. Шоптрајанов, С. Ѓорѓевиќ, Г. Јовановски, Вибрациони спектри на протонирани, делумно и целосно деутериирани моногидрати на метал(II)калиумови фосфати = B. Šoptrajanov, S. Gjorgjević, G. Jovanovski, Vibrational spectra of protonated, partially and totally deuterated monohydrates of metal(II) potassium phosphates, 7. Југословенско саветовање "Општа и примењена спектроскопија", Ниш, 1978, Зборник, Београд = 7. Yugoslav Symposium „General and Applied Spectroscopy”, Niš, 1978, Proceedings, Beograd, 119–125 (1980).
172. В. Петрушевски, Б. Шоптрајанов, Г. Јовановски, Спектарот на водата кај некои сулфатни и селенатни стипси = V. Petruševski, B. Šoptrajanov, G. Jovanovski, The water spectrum in some sulfate and selenate alums, 7. Југословенско саветовање "Општа и примењена спектроскопија", Ниш, 1978, Зборник, Београд = 7. Yugoslav Symposium "General and Applied Spectroscopy", Niš, 1978, Proceedings, Beograd, 105–111 (1980).
173. М. Фукарова-Јуруковска, Г. Мавродиев, Г. Јовановски, Степен на присутност на метастабилната β' фаза кај калени легури од системот Ag-Zn (2748 wt. % Zn) на собна температура = M. Fukarova-Jurukovska, G. Mavrodiev, G. Jovanovski, Presence of metastable β' phase in the alloys of the system Ag-Zn (2748 wt. % Zn) at room temperature, *Билтен на СДФ на Македонија* = Bull. SDF Macedonia, 30–31, 69–73 (1980/81).
174. М. Фукарова-Јуруковска, Г. Мавродиев, Г. Јовановски, Прилог кон конкретизирањето на границите на ζ -фазата од системот Ag-Zn на собна температура = M. Fukarova-Jurukovska, G. Mavrodiev, G. Jovanovski, Determination of the limits of ζ -phase in the Ag-Zn system at room temperature, *Год. Зб. Фак. Физ. = Annuaire – Physique*, 31, 121–125 (1981).
175. M. Penavić, B. Kamenar, L. Šoptrajanova, G. Jovanovski, B. Šoptrajanov, Preparation, crystal structure and infrared spectra of *cis*-[Pd(NH₃)₂(CN)₂], *God. Jugosl. cent. kristalogr.* 17, S59–S61 (1982).
176. D. Grdenić, B. Kamenar, B. Korpar-Čolig, M. Sikirica, G. Jovanovski, Tetrakis(trifluoroacetoxymercuri)methane, C(HgOCOCF₃)₄, *Cryst. Struct. Comm.* 11, 565–568 (1982).
177. L. Šoptrajanova, B. Šoptrajanov, G. Jovanovski, Infrared spectra of *cis*-[Pd(CN)₂(NH₃)₂], *J. Mol. Struct.* 142, 63–66 (1986).
178. M. Penavić, L. Šoptrajanova, G. Jovanovski, B. Šoptrajanov, *cis*-Diamminedicianopalladium(II), *Acta Crystallogr.*, C42, 1283–1284 (1986).
179. G. Jovanovski, J. Thomas, I. Olovsson, A deformation electron density of potassium oxalate monohydrate at 100 K, *Acta Crystallogr.* B43, 85–92 (1987).
180. B. Kaitner, G. Jovanovski, I. Janev, Structure of 3,4-dihydroxy-1,6-diphenyl-2,4-hexadiene-1,6-dione(I) and its 1,6-di-*p*-tolyl analogue (II), *Acta Crystallogr.* C48, 127–129 (1992).
181. B. Kaitner, G. Jovanovski, I. Janev, Structure of 2,3-diphenacylquinoxaline, *Acta Crystallogr.* C48, 129–131 (1992).
182. M. Cakić, G. Jovanovski, V. Veljković, M. Lazić, M. Stanković, Study on dextran particulation in bottled dextran solutions, *Pharmazie*, 47, 712–713 (1992).
183. G. Jovanovski, B. Šoptrajanov, B. Kaitner, L. Prangova, Structural studies of some *o*-substituted S-phenyl thiobenzoates: I. Crystal structure of S-phenyl *o*-chlorothiobenzoate and S-phenyl *o*-bromothiobenzoate, *J. Crystallogr. Spectrosc. Res.* 23, 49–53 (1993).
184. B. Šoptrajanov, G. Jovanovski, V. Stefov, I. Kuzmanovski, Vibrational spectra of magnesium hydrogenphosphate trihydrate and of its manganese analogue, *Phosphorus, Sulfur and Silicon*, 111, 9 (1996).
185. G. Jovanovski, S. Pocev, B. Kaitner, Crystal structure of magnesium potassium phosphate monohydrate, MgKPO₄ × H₂O, *Bull. Chem. Technol. Macedonia*, 16, 59–63 (1997).
186. B. Šoptrajanov, G. Jovanovski, I. Kuzmanovski, V. Stefov, Fourier transform vibrational spectra of magnesium hydrogenphosphate trihydrate. I. The O–H stretching region, *Spectroc. Lett.* 31, 1191–1205 (1998).
187. B. Šoptrajanov, V. Stefov, I. Kuzmanovski, G. Jovanovski, Fourier transform infrared and Raman spectra of manganese hydrogenphosphate trihydrate, *J. Mol. Struct.* 482–483, 103–107 (1999).

188. B. Šoptrajanov, V. Stefov, I. Kuzmanovski, G. Jovanovski, Fourier transform vibrational spectra of magnesium hydrogenphosphate trihydrate. II. The 2000–370 cm⁻¹ region, *Spectroc. Lett.* 32, 703–717 (1999).
189. G. Jovanovski, B. Šoptrajanov, Lj. Pejov, L. Prangova, Fourier transform infrared and computational study of some o-substituted S-phenyl thiobenzoates, *16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 51–54 (1999).
190. В. Стевов, Б. Шоптрајанов, И. Кузмановски, Г. Јовановски, Фурье трансформни инфрацрвени и рамански спектри на магнезиум хидрогенфосфат трихидрат во областа од 600 до 160 cm⁻¹ = V. Stefov, B. Šoptrajanov, I. Kuzmanovski, G. Jovanovski, Fourier-transform infrared and Raman spectra of magnesium hydrogenphosphate trihydrate in the 600–160 cm⁻¹ region, *16th Конгрес на хемичарите и технолозите на Македонија = 16th Congress of Chemists and Technologists of Macedonia, Skopje, Book of Papers*, 91–93 (1999)
191. Lj. Pejov, B. Šoptrajanov, G. Jovanovski, Very low H–O–H bending frequencies. II. Quantum chemical study of the water bending potential in compounds of the MgKPO₄·H₂O Type, *J. Mol. Struct.* 563–564, 321–327 (2001).
192. G. Jovanovski, B. Šoptrajanov, L. Prangova, Lj. Pejov, *Ab initio* HF SCF and Fourier transform infrared study of the structure and vibrational force field in two o-substituted S-phenyl thiobenzoates, *Commun. Math. Comp. Chem.* 42, 287–296 (2001).
193. G. Jovanovski, P. Naumov, Chemistry in Macedonia, *Bull. Chem. Technol. Maced.* 20, 157–182 (2001).
194. B. Šoptrajanov, G. Jovanovski, Lj. Pejov, Very low H–O–H bending frequencies. III. Fourier transform infrared study of cobalt potassium phosphate monohydrate and manganese potassium phosphate monohydrate, *J. Mol. Struct.* 613, 47–54 (2002).
195. B. Šoptrajanov, V. Stefov, I. Kuzmanovski, G. Jovanovski, D. Lutz, B. Engelen, Very low H–O–H bending frequencies. IV. Fourier transform infrared spectra of synthetic dittmarite, *J. Mol. Struct.* 613, 7–14 (2002).
196. B. Šoptrajanov, Lj. Pejov, G. Jovanovski, V. Stefov, Very low HOH bending vibrations. V. Quantum chemical study of water bending vibrations in MgKPO₄×H₂O, *J. Mol. Struct.* 706, 101–106 (2004).
197. V. Stefov, A. Hergold-Brundić, B. Šoptrajanov, G. Jovanovski, Tricesium *trans*-tetraaquadichlorovanadium(III) tetrachloride: Redetermination of the crystal structure and infrared study of the water spectrum, *J. Mol. Struct.* 707, 109–114 (2004).
198. G. Petruševski, P. Naumov, G. Jovanovski, S. W. Ng, Unprecedented sodium–oxygen clusters in the solid-state structure of trisodium hydrogentetralvalproate monohydrate: A model for the physiological activity of the anticonvulsant drug epilem, *Inorg. Chem. Comm.*, 11, 81–84 (2008).
199. G. Petruševski, P. Naumov, G. Jovanovski, G. Bogoeva-Gaceva, S. W. Ng, Solid-state forms of sodium valproate, active component of the anticonvulsant drug epilem, *ChemMedChem.*, 3, 1377–1386 (2008).
200. P. Naumov, Gj. Petruševski, G. Jovanovski, Vibrational spectra of calcium, strontium and barium valproates. Self-assembly of valproate nanostrands in aqueous solution and in the solid state, *CrystEngComm.*, 12, 2325–2331 (2010).
201. G. Petruševski, M. Kajdžanosa, S. Ugarkovic, I. Micovski, G. Bogoeva-Gaceva, G. Jovanovski, P. Makreski, Solvatomorphism of codeine phosphate sesquihydrate—Vibrational spectroscopy and thermoanalytical characterization, *Vibr. Spectrosc.*, 63, 460–468 (2012).
202. Gj. Petruševski, M. Zbačnik, M. Kajdžanosa, S. Ugarković, V. Trimčeski, B. Kaitner, G. Jovanovski, P. Makreski, Pholcodine monohydrate: Crystal structure and polymorphism, *J. Cryst. Growth*, 375, 119–124 (2013).
203. Lj. Pejov, G. Jovanovski, Low bending vibrations of crystalline water molecules an ongoing quest or a final word – topical review – a tribute to academician Bojan Šoptrajanov, *Contributions, Sec. Nat. Math. Biotech. Sci., MASA*, 38, 1, [69]–82 (2017).
204. G. Jovanovski, B. Boev, P. Makreski, Chemistry and geology of coal: nature, composition, coking, gasification, liquefaction, production of chemicals, formation, peatification, coalification, coal types, and ranks, *ChemTexts : the Textbook Journal of Chemistry* [El. resource], 9, issue 2, article 2 (2023).
- F. Gorachinov, P. Makreski, ... et al., G. Jovanovski, N. Geskovski, Micro-Raman Spectroscopy for Detection of Label-Free and Oil Red O Labeled PEGylated Nanoliposomes in hCmec/D3 Cell Internalization Studies, *Croat. Chem. Acta*, 95, [131]–140 (2022).

IV. Professional papers

1. Г. Јовановски, З. Здравковски, Величини, единици и симболи во хемијата = G. Jovanovski, Z. Zdravkovski, Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 9, 209–222 (1990).
2. Г. Јовановски, З. Здравковски, 2. Величини, единици и симболи во хемијата = G. Jovanovski, Z. Zdravkovski, 2. Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 10, 77–81 (1991).
3. Г. Јовановски, Б. Шоптрајанов, 3. Величини, единици и симболи во хемијата = G. Jovanovski, B. Šoptrajanov, 3. Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 11, 73–78 (1992).
4. Г. Јовановски, Преглед на објавените трудови на научните работници од Институтот за хемија во периодот од 1953–1991 година = G. Jovanovski, Survey of the published papers by the Institute of Chemistry staff in the period 1953-1991, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 11, 81–96 (1992).
5. Г. Јовановски, Б. Шоптрајанов, 4. Величини, единици и симболи во хемијата = G. Jovanovski, B. Šoptrajanov, 4. Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 12, 51–55 (1993).
6. Г. Јовановски, Б. Шоптрајанов, 5. Величини, единици и симболи во хемијата = G. Jovanovski, B. Šoptrajanov, 5. Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 13, 47–51 (1994).
7. Г. Јовановски, Двопредметни четиригодишни студии – состојби и преспективи = G. Jovanovski, Two-subject four-years studies, state and prospectives, *Симпозиум „Местото и улогата на природно-математичките наставни подрачја во образовниот процес во основното и средното образование на Република Македонија“*, Отешево, Трудови = *Symposium „The role of the natural sciences and mathematics in the educational process of elementary and high-schools in the Republic of Macedonia“*, Oteševo, Papers, 167–172 (1994).
8. Г. Јовановски, Дороти Хоккин 1910–1994, *Глас. хем. технол. Македонија* = G. Jovanovski, Doroti Hoxkin 1910–1994, *Bull. Chem. Technol. Macedonia*, 14, 65–66 (1995).
9. Г. Јовановски, Б. Шоптрајанов, 6. Величини, единици и симболи во хемијата = G. Jovanovski, B. Šoptrajanov, 6. Quantities, unites and symbols in chemistry, *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 14, 117–123 (1995).
10. Г. Јовановски, Кои се нобеловците по хемија = G. Jovanovski, Who are the Nobel prize winners in chemistry *Глас. хем. технол. Македонија* = *Bull. Chem. Technol. Macedonia*, 16, 161–167 (1997).
11. Г. Јовановски, В. Матевски, Уписаната политика во високото образование = G. Jovanovski, V. Matevski, The enrolment policy in higher education, *Општествената транзиција и образоването*, Струга, 1997, Филозофски факултет, Институт за педагогија, Институт за социологија, Скопје, Книга на трудови = *Symposium „Social Transition and Education“*, Struga, 1997, Faculty of Philosophy, Institute of pedagogy, Institute of Sociology, Skopje, Book of Papers, 326–330 (1998).
12. V. Urumov, D. Dimoski, G. Jovanovski, M. Karchicka, V. Matevski, The role of the natural sciences in the education process, *Phys. Maced.* 49, 65–73 (1999).
13. G. Jovanovski, The Nobel chemistry prize winners through hundred years, *Bull. Chem. Technol. Maced.* 20, 91–100 (2001).
14. Н. Гочева, Г. Јовановски, Водата околу нас и во нас = N. Gočeva, G. Jovanovski, The water around us and in our body, *Хемко*, 1, 4–7 (2001).
15. G. Jovanovski, The Nobel laureates in chemistry – A numeration of Nobelists, *Chemical Heritage*, 19, 49–51 (2001).
16. Г. Јовановски, Б. Боев, П. Макрески, Минералите од Македонија = G. Jovanovski, B. Boev, P. Makreski, Minerals from Macedonia, *Македонско рударство и геологија* = *Macedonian Mining and Geology*, VIII, 14–17 (2008).

17. G. Jovanovski, P. Naumov, Crystallography in Macedonia. (In Crystallography in South-Eastern Europe, Part 1), *International Union of Crystallography – Newsletter*, 19, 19–21 (2011).
18. Г. Јовановски, Нобелова награда за хемија – 2011, Даниел Шехтман, Откривање на квази-кристалите = G. Jovanovski, Nobel Prize in Chemistry – 2011, Daniel Shechtman, Discovery of quasicrystals, *Maced. J. Chem. Eng.*, 30, 253–259 (2011).
19. Г. Јовановски, Б. Шоптрајанов, В. Стефов = Состојби и перспективи на науката во Република Македонија = G. Jovanovski, B. Šoptrjanov, V. Stefov, States and perspectives of the science in Macedonia, *Научен собир во Македонската академија на науките и уметностите по повод: Дваесет години самостојност на Република Македонија (1991–2011), Скопје, Зборник на трудови* = *Symposium at the Macedonian Academy of Sciences and Arts on the Occasion of: The Twenty Years of Independence of the Republic of Macedonia (1991–2011), Skopje, Book of Papers*, 197–208 (2013).
20. Г. Јовановски, Кристалографијата од ерата на Лаје и Брег до денешни денови: 2014 – Интернационална година на кристалографијата, *Билтен на МАНУ*, XLI, 1–2, 5–12 (2014).
21. В. Стефов, Г. Јовановски, Б. Шоптрајанов, Статус на науката во Македонија и визии за подобрување, *Научноистражувачката работа на Природно-математичкиот факултет: Визија за развој на високото образование и научноистражувачката дејност во Македонија : интерна конференција*, Скопје, 22.09.2017, [ПМФ, УКИМ], Скопје, [285–296], 12 сл. (2017). (PowerPoint)
22. В. Матевски, Г. Јовановски, Академик Ѓорѓи Филиповски : (по повод 100-годишнината од раѓањето) = V. Matevski, G. Jovanovski, Academician Gjorgji Filipovski : (on the occasion of his 100th birthday), *100 години Ѓорѓи Филиповски : пригодно издание*, МАНУ, Скопје, [5]–12, 2019; Истото во: *Contributions, Sec. Nat. Math. Biotech. Sci., MASA*, 40, no. 1, [5]–12 (2019). (dedicated to acad. Gjorgji Filipovski on the occasion of his 100th birthday)

V. Monographs and editor in monographs

1. G. Ivanovski, G. Jovanovski, O. Popov, V. Petruševski (text and editing), with contributions by D. Dimeski, L. Janićević, D. Roganović-Zafirova, Lj. Netkov, Lj. Jordanovski, *Faculty of Natural Sciences and Mathematics*, Faculty of Natural Sciences and Mathematics, Skopje, 1994.
2. Б. Шоптрајанов, Г. Јовановски, Л. Андреева, В. Стефов, *Физичка хемија I и физичка хемија II*, Практикум, Природно-математички факултет, Скопје, 1998 (прво издание); 2003 (второ издание); 2007 (трето издание) = B. Šoptrajanov, G. Jovanovski, L. Andreeva, V. Stefov, *Experimental Physical Chemistry I and Physical Chemistry II*, Faculty of Natural Sciences and Mathematics, Skopje, 1998 (first edition); 2003 (second edition); 2007 (third edition).
3. Г. Јовановски, Л. Андреева, Б. Шоптрајанов, *Структура на молекули*, Практикум, Природно-математички факултет, Скопје, 2001 (прво издание); 2009 (второ издание) = G. Jovanovski, L. Andreeva, B. Šoptrajanov, *The Structure of Molecules*, Experimental guide, Faculty of Natural Sciences and Mathematics, Skopje, 2001 (first edition); 2009 (second edition).
4. T. Stafilov, G. Jovanovski (text and editing), *Bibliography of the Institute of Chemistry, 1946–2006*, Faculty of Natural Sciences and Mathematics, Skopje, 2006.
5. Г. Јовановски (гл. уред.), К. Богоевски, Б. Вељановски, С. Диневска-Ковкаровска, М. Јоноска, Д. Карчицка, Б. Марковски, Т. Страфилов, В. Чејковска, Н. Шекутковски (редактори), *Природно-математички факултет, Скопје, 1946–2006*, Природно-математички факултет, Скопје, 2006 = G. Jovanovski (edit. in chief), K. Bogoevski, B. Veljanovski, S. Dinevska-Čovkarovska, M. Jonoska, D. Karčicka, B. Markovski, T. Stafilov, V. Čejkovska, N. Šekutkovski (Editors), *Faculty of Natural Sciences and Mathematics, Skopje: 1946–2006*, Faculty of Natural Sciences and Mathematics, Skopje, 2006.
6. T. Stafilov, G. Jovanovski (text and editing), *Bibliography of the Institute of Chemistry, 1946–2011*, Faculty of Natural Sciences and Mathematics, Skopje, 2011.

7. G. Jovanovski, B. Boev, P. Makreski, *Minerals from the Republic of Macedonia with an Introduction to Mineralogy*, Publisher: Macedonian Academy of Sciences and Arts; co-publisher: Scenpoint, Skopje, 2012.

8. G. Jovanovski (translated in macedonian language), P. Naumov (edited), *Кристалографијата денес : меѓународна година на кристалографијата 2014*, United Nations Educational, Scientific and Cultural Organization, Skopje, 2014. (превод на изданието: S. Schneegans (coordinator, editor), *Crytallography matters! : International Year of Crystallology 2014*, United Nations Educational, Scientific and Cultural Organization, Paris, 2013)

9. Г. Јовановски, *Собрани трудови. Т.1, Сахаринати*, Македонска академија на науките и уметностите = Macedonian Academy of Sciences and Arts, Скопје, 2015.

10. Г. Јовановски, *Собрани трудови. Т.2, Минерали*, Македонска академија на науките и уметностите = Macedonian Academy of Sciences and Arts, Скопје, 2015.

11. Г. Јовановски, *Собрани трудови. Т.3, Други области*, Македонска академија на науките и уметностите = Macedonian Academy of Sciences and Arts, Скопје, 2015.

12. Г. Јовановски, П. Макрески, *Структура на кристали*, Македонска академија на науките и уметностите, Скопје, 2016.

13. Т. Ставилов, Г. Јовановски (подготвиле, уредиле), *Институт за хемија: библиографија 1946-2016*, Природно-математички факултет, Скопје, 2016 = T. Stafilov, G. Jovanovski (prepared, edited), *Institute of chemistry: bibliography 1946-2016*, Faculty of natural sciences and mathematics, Skopje 2016.

14. В. Забец... и др., Г. Јовановски (превод од хрватски), *Македонија низ искуствата на загребската минеролошка школа: каталог на изложбата, Скопје, 28 септември–31 декември, 2016*, МАНУ, Скопје, 2016 = V. Zabec... et al., G. Jovanovski (prevod s hrvatskog), *Makedonija kroz ikustva zagrebačke minerološke škole: katalog izložbe, Skopje, 28. rujna–31. prosinca, 2016*, MAZU, Skopje, 2016.

15. Т. Фити (ред.), [чл. на раб. група А. Беџети, Ц. Грозданов, Г. Јовановски... и др.], *Приоритети на идниот развој на Република Македонија : quo vadis res publica Macedonia?*, Македонска академија на науките и уметностите, Скопје, 2017. (изд. од истражувачки проект)

16. Г. Јовановски, Б. Боев, Т. Ставилов... и др., *Allchar : светско природно наследство* = G. Jovanovski, B. Boev, T. Stafilov... et al., *Allchar : a world natural heritage*, МАНУ, Скопје = MASA, Skopje, cop. 2018.

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