

1. Published papers from 2006 to now.

1. **G. Jovanovski, A. Kahil, O. Grupče, Lj. Pejov**, Vibrational Analysis of Thiosaccharin and Thiosaccharinate Anion. A Gradient-Corrected Density Functional and Experimental Study, *J. Mol. Struct.* 784 (2006), 7-17
2. **Lj. Pejov, G. Jovanovski, O. Grupče, B. Soptrajanov**, Anharmonicity of water stretching vibrations in series of isomorphous crystalline hydrates. Copper and manganese saccharinates hexahydrates. *Spectrochimica Acta Part A* 66 (2007) 419–426
3. **B. Minčeva-Šukarova, O. Grupče, L. Cukovska**, *Micro-Raman Spectroscopic Studies of Byzantine Cultural Heritage in Republic of Macedonia*, *Maced. J. Chem. Chem. Eng.*, 26 (2007) 103-110., www.mjccce.org.mk
4. **V. Tanevska, I. Kuzmanovski, O. Grupče**, Provenance determination of Vinica terra cotta icons using self-organising maps, *Annali di Chimica*, 7/97, 2007, 541-552.
5. **L. Čukovska, O. Grupče, B. Minčeva-Šukarova, and I. Kuzmanovski**, Characterization of salt efflorescence using target factor analysis, Development of the method, *J. Bras. Chem. Soc.*, 20/1, 57-63, 2009
6. **V. Tanevska, Ph. Colomban, B. Minčeva-Šukarova, O. Grupče**, Characterization of pottery from Republic of Macedonia I: Raman analysis of Byzantine glazed pottery, excavated from Prilep and Skopje (12th-14th century), *J.Raman. Spectrosc.* 40 (9) 1240-1248, 2009
7. **V. Tanevska, Lj. Džidrova, B. Minčeva-Šukarova and O. Grupče**, Micro-Raman Pigment Analysis of Wall Paintings from a Church in the Skopje Fortress, Republic of Macedonia, *Proceedings of Chemistry and Conservation Science*, Special Volume by the Italian Chemical Society, *in press*.
7. **V. Tanevska, Philippe Colomban, B. Minčeva-Šukarova, O. Grupče**, Characterization of pottery from Republic of Macedonia I: Raman analysis of Byzantine glazed pottery, excavated from Prilep and Skopje (12th-14th century), *J.Raman. Spectrosc.* 40 (9) 1240-1248 (2009)
8. **A. Raškovska, B. Minčeva-Šukarova, O. Grupče and Ph. Colomban**, Characterization of Pottery from Republic of Macedonia II. Raman and Infrared Analyses of Glazed Pottery Finds from Skopsko Kale, *J.Ram.Spec.*(2009) DOI: 10.1002/jrs.2463 (in press)
9. **O. Grupče, B. Minčeva-Šukarova, V. Tanevska, A. Raskovska, I. Kuzmanovski**, Spectroscopic studies of Pottery finds from Republic of Macedonia, SERES 09 Proceedings, 1062, Eskisehir, Turkey

2. Published books from 2006: Member of the team for Tuning booklet: Reference Points for the Design and Delivery of Degree Programmes in Chemistry

3. Translated books from 2006 to now.

-D. Harvey, *Modern Analytical Chemistry*, McGraw-Hill Higher Education, International edition, 2000

- D. Skoog, D. West, F. J. Holler, S. R. Crouch, *Analytical Chemistry. An Introduction*, Brooks/Cole, 2000

4. Presentation at scientific meetings, from 2006 to now, divided in groups of:

a. Invited lecturer

- **O. Grupče**, B. Minčeva-Šukarova, **plenary lecture**: Spectroscopic studies of cultural heritage objects in Republic of Macedonia, *The International Congress on Spectroscopic Methods for Conservation of Cultural Heritage*, Istanbul, 2007, Book of Abstracts, 15.

-**O. Grupče**, B. Minčeva-Šukarova, V. Tanevska, A. Raškavska, I. Kuzmanovski, **plenary lecture**, Spectroscopic Studies of Pottery Finds from Republic of Macedonia, SERES'09 - International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress, Turkey

-**O. Grupče**, L. Robevska-Cukovska, I. Kuzmanovski and B. Minčeva-Šukarova, Qualitative and quantitative determination of salt efflorescence in several churches in Republic of Macedonia, "Modeling of the environment and of materials" COST D42 working group meeting, Sibiu, Romania, 2009

O. Grupče, Indoor environment effect on museum objects: Conservation strategies, *Science meets archeology and history of art, Workshop*, Skopje, 2007

b. Oral presentations

-**O. Grupče**, B. Minčeva-Šukarova, Spectroscopic characterization of byzantine (postbyzantine) wallpaintings and glazed ceramics, *Chemistry and Culture – Euro-Mediterranean Cooperation in Research and Education*, Aristotle University of Thessaloniki, 2007

-**O. Grupče**, B. Minčeva-Šukarova, Reoccurrence of salt efflorescence in the St. Bogorodica Perivlepta church in Ohrid. **COST D42**, may, Ohrid, 2007

-**O. Grupče**, Spectroscopic Study of Cultural Heritage Objects in the Republic of Macedonia, *Chemistry & Culture - Euro Mediterranean Cooper. in Research and Education*, Aristotle University of Thessaloniki, October, 2007

-**O. Grupče**, "TUNING PROJECT" ПРИДОНЕС НА УНИВЕРЗИТЕТИТЕ КОН БОЛОЊСКИОТ ПРОЦЕС, Rektorat, Скопје, мај, 2007

c. Posters

1. V. Tanevska, I. Kuzmanovski, O. Grupče, Use of some chemometrics methods for provenance: Determination of terra cotta icons found in Vinica fortress, *Cost G8, Non-destructive Analysis and Testing of Museum Objects, Final Workshop*, Nicosia, 2006, Abstract book, 29.

2. B. Minčeva-Šukarova, O. Grupče, P. Vandebecle, V. Tanevska, S. Mamučevska, Micro-Raman pigment analysis in some 19th century icons painted by Dicho Zograph, *Cost G8, Non-destructive Analysis and Testing of Museum Objects, Final Workshop, Nicosia, 2006*, Abstract book, 48.

3. **L. Cukovska, I. Kuzmanovski, B. Minčeva-Šukarova, O. Grupče,** Characterization of efflorescence in frescoes using infrared spectroscopy and target factor analysis, *XXVIII European Congress on Molecular Spectroscopy*, Istanbul, 2006, Book of Abstracts, P1-5.
4. **L. Čukovska, P. Vandebeele, B. Minčeva-Šukarova, O. Grupče, V. Tanevska,** Raman Spectroscopic Approach to the Problem of Mixed or Superimposed Pigments in Byzantine Frescos. I. Referent Sample Study, *5th International Conference on the Chemical Societies of the South-East European Countries*, ICOSECS 5, Ohrid, 2006, ACH-10.
5. **V. Tanevska, P. Colomban, B. Minčeva-Šukarova, O. Grupče, V. Andrić, A. Tournié,** Characterisation of Byzantine ceramic finds from archaeological sites in Skopje and Prilep with non-destructive methods of analysis, *5th International Conference on the Chemical Societies of the South-East European Countries*, ICOSECS 5, Ohrid, 2006, ACH-47.
6. **P. Naumov, G. Jovanovski, O. Grupče, B. Kaitner, D. A. Rae, W. S. Ng,** Imperfection compensated by disorder: modulations in the structure of sodium saccharinate 1.875 hydrate with unit cell of 15.6 nm³, *5th International Conference on the Chemical Societies of the South-East European Countries*, ICOSECS 5, Ohrid, 2006, PCH-40.
7. **B. Minčeva-Šukarova, O. Grupče,** National meeting on Belgrad, 2007
8. **B. Minčeva-Šukarova, O. Grupče,** FP 6 project, *Chemistry and Culture – Euro-Mediterranean Cooperation in Research and Education*, Aristotle University of Thessaloniki, October 2007
9. **A. Raskovska, B. Minčeva-Šukarova, O. Grupče, D. Donev,** FT-Infrared Study of 6th Century AD Ceramics from Skopje Region, AARD (Analysis in Art with Radiation), Muhlhausen, September, 2007, 69
10. **V. Tanevska, P. Piccardo, Ph. Colomban, O. Grupče, B. Minčeva-Sukarova,** Characterization of Byzantine Glazed Ceramic Finds in Republic of Macedonia by micro-Raman Spectroscopy and Scanning Electron Microscopy, Vessels: inside and outside, *EMAC '07, 9th European Meeting on Ancient Ceramics*, Book of Abstracts, 121, Hungarian National Museum, Budapest, Hungary, October 2007.
11. **V. Tanevska, I. Kuzmanovski, O. Grupče, B. Minčeva-Sukarova,** Determination of the Provenance of Vinica Terra Cotta Icons Using Support Vector Machines, *EMAC '07, 9th European Meeting on Ancient Ceramics*, Book of Abstracts, 79, Hungarian National Museum, Budapest, Hungary, October 2007.
12. **B. Minčeva-Šukarova, O. Grupče,** Micro-Raman study of pigments, ceramics and minerals, Proceedings of the 2nd National Workshop “Nuclear Techniques and other instrumental methods in investigation of cultural heritage artifacts”, p. 16, April 2007 Belgrade, Serbia
13. **A. Raskovska, B. Minčeva-Sukarova, O. Grupče, D. Donev,** Spektroskopski ispitivanja na keramika od 6 vek n.e od okolinata na Skopje, VII kongres po cista

- i primeneta hemija na studentite od Makedonija, so megjunarodno ucestvo, Izvodi od soopstenija, O-22, Skopje, 2007
14. B. Minčeva-Šukarova, V. Tanevska, Lj. Dzidrova, O. Grupče and K. Ristov, **Micro-Raman Pigment Analyses of Wall Paintings from Churches in the Skopje Fortress, Republic of Macedonia**, Infrared and Raman Group - IRUG8, Book of Abstracts, Academy of Fine Arts, Vienna, Austria, www.irug8-2008.at
 15. O. Grupče, A. Raškavska, B. Minčeva-Šukarova and D. Donev, **Characterization of Ceramic Artifacts from Republic of Macedonia: Infrared and Raman Analysis of Late Roman / Early Byzantine Finds**, Infrared and Raman Users Group - IRUG8, Book of Abstracts, Academy of Fine Arts, Vienna, Austria, www.irug8-2008.at
 16. B. Minčeva-Šukarova, V. Tanevska, A. Raskovska, O. Grupče, **Micro-Raman spectroscopic analysis of Minerological Phases in Byzantine Glazed Ceramics from Republic of Macedonia**, Balkan Symposium on Archaeometry, Book of Proceedings 35, Ohrid, 2008
 17. P. Picardo, R. Amendola, P. Genocchio, D. Temelkovski, B. Minčeva-Sukarova and O. Grupce, **Studies on the 3rd Century BC shields found in Republic of Macedonia**, Balkan Symposium on Archaeometry, Book of Proceedings5, Ohrid, 2008
 18. I. Holclajtner-Antunovic, Lj. Damjanovic, U.B. Mioc, I. Pasti, O. Grupce, B. Monceva=Sukarova, V. Tanevska, A. RAskovska, **Medieval Balkan Ceramics: Physicochemical Characterization of Finds from Serbia and Republic of Macedonia**, Balkan Symposium on Archaeometry, Book of Proceedings 19, Ohrid, 2008
 19. L. Robevska, I. Kuzmanovski, B. Minčeva-Sukarova, O. Grupče, **Quantitative Determination of Salt Efflorescence in Three Churches in Republic of Macedonia**, Balkan Symposium on Archaeometry, Book of Proceedings 61, Ohrid, 2008
 20. V. Tanevska, V. Popovska-Korobar, Peter Vandenabeele, B. Minčeva-Šukarova, O. Grupče, **Pigment Analysis of some Icons (12th to 17th c.) from Republic of Macedonia using Micro-Raman spectroscopy**, Balkan Symposium on Archaeometry, Book of Proceedings 74, Ohrid, 2008
 21. A. Raskovska, O. Grupče, B. Minčeva-Šukarova, N. Wenland and E. Varella, **Effect of Temperature and Humidity on the Chromatic Profile of the Medieval Paintings: Simulation Experiment**, Balkan Symposium on Archaeometry, Book of Proceedings 77, Ohrid, 2008
 22. Lj. Dzidrova, B. Minčeva-Šukarova, V. Tanevska, O. Grupče, **Exact Research Results Applied in the Chronological Identification of Architectural**
 23. B. Minčeva-Šukarova, V. Tanevska, O. Grupče, **Micro-Raman Spectroscopy for Analysis of Medieval Pigments and Glazed Ceramics –Case Studies**, Physical Chemistry 2008, Proceedings 65, Belgrade, 2008

24. **A. Raškovska, B. Minčeva-Šukarova, O. Grupče and Lj. Džidrova**, Characterization of Pottery from Republic of Macedonia II. Raman and Infrared Analyses of Glazed Pottery Finds from Skopsko Kale, Book of proceedings B-P17, Sibiu, Romania 2009
25. **B. Minčeva-Šukarova, A. Raškovska, A. Issi, V. Tanevska, O. Grupče and A. Kara**, An approach for characterization of mineral composition in the pottery finds using point-to-point micro-Raman spectroscopy, 5th International Congress on the Application of Raman Spectroscopy in Art and Archaeology, Book of Abstracts, 140, Bilbao, Spain, 2009
26. **V. Tanevska, B. Minčeva-Šukarova, O. Grupče and I. Kuzmanoski**, Spectroscopic Contribution to the Study of the Antique Wall Paintings of the Roman Villa in Scupi, LACONA VIII Conference – Lasers in the Conservation of Artworks, Book of proceedings B-P14, Sibiu, Romania 2009
27. **O. Grupče, J. Scriber, M. Simileanu, A. Raškovska, Lj. Džidrova, B. Minčeva-Šukarova and M. Šurbanovska**, A Roman Marble Bust Analysis Using LIBS and μ -Raman Spectroscopy - A Case Study, LACONA VIII Conference – Lasers in the Conservation of Artworks, Book of proceedings B-P15, Sibiu, Romania 2009
28. **V. Tanevska, R. Lewandowska, Lj. Džidrova, O. Grupče and B. Minčeva-Šukarova**, Micro-Raman and XRF Spectroscopic Characterization of Glass Mosaics from Republic of Macedonia, SERES'09 - International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress, P-43, Eskisehir, Turkey, 2009
29. **A. Raškovska, A. Issi, B. Minčeva-Šukarova, A. Kara and O. Grupče**, Byzantine and Ottoman Glazed Pottery from Republic of Macedonia. Mineralogical, Chemical and Manufacturing Characterization, SERES'09 - International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress, P-11, Eskisehir, Turkey, 2009
30. **O. Grupče, B. Minčeva-Šukarova, V. Tanevska, A. Raškovska, I. Kuzmanoski**, Spectroscopic studies of Pottery finds from Republic of Macedonia, SERES 09, Invited lecture, 1062, Eskisehir, Turkey, 2009