

## Publications 2016

1. R. Schwarzlin, N. Pusenjak, D. Makuc, M. Krizman, I. Vovk, J. Plavec and U. Svajger  
Synergistic complex from plants Solanaceae exhibits cytotoxicity for the human hepatocellular carcinoma cell line HepG2  
*BMC Complementary and Alternative Medicine* 2016, 16:395.  
[COBISS.SI-ID 32879833]
2. U. Slapsak, G. Salzano, L. Amin, R.N.N. Abskharon, G. Ilc, B. Zupancic, I. Biljan, J. Plavec, G. Giachin and G. Legname  
The N terminus of the Prion Protein Mediates Functional Interactions with the Neuronal Cell Adhesion Molecule (NCAM) Fibronectin Domain  
*J. Biol. Chem.* 2016, 291 (42), 21857-21868.  
[COBISS.SI-ID 6027034]
3. K. N. Farrugia, D. Makuc, A. Podborska, K. Szacilowski, J. Plavec and D. C. Magri  
Colorimetric Naphthalene-based Thiosemicarbazide Anion Chemosensors with an Internal Charge Transfer Mechanism  
*Eur. J. Org. Chem.* 2016, (25), 4415-4422.  
[COBISS.SI-ID 6001178]
4. I. Crnolatac, I. Rogan, B. Majic, S. Tomic, T. Deligeorgiev, G. Horvat, D. Makuc, J. Plavec, G. Pescitelli and I. Piantanida  
Small molecule probes finely differentiate between various ds- and ss-DNA and RNA by fluorescence, CD and NMR response  
*Anal. Chim. Acta* 2016, 940, 128-135.  
[COBISS.SI-ID 6000922]
5. O. Adeyanju, O. P. Olademehin, Y. Hussaini, U. C. Nwanta, A. I. Adejoh and J. Plavec  
Synthesis and Characterization of Carboxymethyl Plectranthus esculentus Starch. A Potential Disintegrant  
*J. Pharm. Appl. Chem.* 2016, 2 (3), 189-195.  
[COBISS.SI-ID 6000666]
6. A. Kotar, B. Wang, A. Shivalingam, J. Gonzalez-Garcia, R. Vilar and J. Plavec  
NMR Structure of a Triangulenium based Long-lived Fluorescence Probe Bound to G-quadruplex  
*Angew. Chem. Int. Ed.* 2016, 55(40), 12508-12511.  
*Angew. Chem.* 2016, 128 (40), 12696–12699.  
[COBISS.SI-ID 5990426]
7. D. Makuc, T. Merckx, W. Dehaen and J. Plavec  
Conformational NMR Study of Bistriazolyl Anion Receptors  
*Acta Chim. Slov.* 2016, 63(3), 484-488.  
[COBISS.SI-ID 5990170]
8. B. Japelj, G. Ilc, J. Marusic, J. Sencar, D. Kuzman and J. Plavec  
Biosimilar structural comparability assessment by NMR: from small proteins to monoclonal antibodies

*Sci. Rep.* 2016, 6, article number: 32201.  
[COBISS.SI-ID 5986330]

9. S. Sersen, P. Sket, J. Plavec and I. Turel  
Interactions of Two Cytotoxic Organoruthenium(II) Complexes with G-Quadruplex  
*J. Inorg. Biochem.* 2016, 160, 70-77.  
[COBISS.SI-ID 1537001411]
10. S. Drmota Prebil, U. Slapsak, M. Pavsic, G. Ilc, V. Puz, E. de Almeida Ribeiro, D. Anrather, M. Hartl, L. Backman, J. Plavec, B. Lenarčič and K. Djinovic-Carugo  
Structure and calcium-binding studies of calmodulin-like domain of human non-muscle  $\alpha$ -actinin-1  
*Sci. Rep.* 2016, 6, article number: 27383.  
[COBISS.SI-ID 1536987587]
11. J. Brčić and J. Plavec  
G-quadruplex formation of oligonucleotides containing ALS and FTD related GGGGCC repeat  
*Front. Chem. Sci. Eng.* 2016, 10(2), 222-237.  
[COBISS.SI-ID 5918234]
12. D. S. Jovic, M. N. Seke, A. N. Djordjević, J. Z. Mrdanovic, L. D. Aleksic, G. M. Bogdanovic, A. B. Pavic, and J. Plavec  
Fullerenol nanoparticles as a new delivery system for doxorubicin  
*RSC Adv.* 2016, 6, 38563-38578.  
[COBISS.SI-ID 5911066]
13. V. Jordan, U. Javornik, J. Plavec, A. Podgornik, and A. Recnik  
Self-assembly of multilevel branched rutile-type TiO<sub>2</sub> structures via oriented lateral and twin attachment  
*Sci. Rep.* 2016, 6, article number: 24216.  
[COBISS.SI-ID 29423143]
14. S. Roca, D. Vikic-Topic, J. Plavec, P. Sket, Z. Mihalic, D. Matkovic-Calogovic and Z. Popovic  
Structural diversity of the Ag coordination sphere in complexes of silver(I) nitrate with 3-halopyridine. Characterization of the complexes in solution and in the solid state  
*Polyhedron* 2016, 109, 166-175.  
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15. E. Kranjc, A. Albreht, I. Vovk, D. Makuc and J. Plavec  
Non-targeted chromatographic analyses of cuticular wax flavonoids from *Physalis alkekengi* L.  
*J. Chromatogr. A* 2016, 1437, 95-106.  
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Reversible pH Switch of Two-Quartet G-quadruplexes Formed by Human Telomere  
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17. P. Podbevsek and J. Plavec  
KRAS promoter oligonucleotide with decoy activity dimerizes into a unique topology consisting of two G-quadruplex units  
*Nucleic Acids Res.* 2016, 44(2), 917-925.  
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18. L. Senica, K. Stopar, M. Friedrich, U. Groselj, J. Plavec, M. Pockaj, C. Podlipnik, B. Stefane and J. Svetec  
Synthesis and rotational isomerism of 1-substituted methyl (S)-5-(2-nitrophenyl)-1H-pyrazole-4-carbonyl)alaninates  
*J. Org. Chem.* 2016, 81(1), 146–161.  
[COBISS.SI-ID 1536696771]
19. A. Kotar, T. Tomasic, M. Lenarcic Zivkovic, G. Jug, J. Plavec and M. Anderluh  
STD NMR and molecular modelling insights into interaction of novel mannose-based ligands with DC-SIGN  
*Org. Biomol. Chem.* 2016, 14 (3), 862-875.  
[COBISS.SI-ID 3966577]
20. G. Mali, M. U. M. Patel, M. Mazaj, R. Dominko  
Stable Crystalline Forms of Na Polysulfides: Experiment versus Ab Initio Computational Prediction  
*Chem. Eur. J.* 2016, 22(10), 3355-3360.  
[COBISS.SI-ID 5858586]
21. J. Bitenc, K. Pirnat, G. Mali, B. Novosel, A. R. Vitanova, R. Dominko  
Poly(hydroquinoyl-benzoquinonyl sulfide) as an active material in Mg and Li organic batteries  
*Electrochem. Commun.* 2016, 69, 1-5.  
[COBISS.SI-ID 5966362]
22. S. Bercha, G. Mali, I. Khalakhan, T. Skala, K. C. Prince, V. Matolín, N. Tsud  
Histidine adsorption on nanostructured cerium oxide  
*J. Electron. Spectrosc. Relat. Phenom.* 2016, 212, 28-33.  
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23. P. Klemen, G. Mali, M. Gaberscek, and R. Dominko  
Quinone-formaldehyde polymer as an active material in Li-ion batteries  
*J. Power Sources.* 2016, 315, 169-178.  
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24. H. Ward, G. Mali, P. Kustrowski, T. Willhammar, M. Mertens, S. Bals, P. V. D. Voort, and P. Cool  
Post-synthesis bromination of benzene bridged PMO as a way to create a high potential

hybrid material

*Microporous Mesoporous Mater.* 2016, 236, 244-249.  
[COBISS.SI-ID 5983770]

25. V. Jure, A. Krajnc, M. Mazaj, A. Ristic, K. Vanatalu, A. Oss, A. Samoson, V. Kaucic, and G. Mali  
Dehydration of AlPO 4-34 studied by variable-temperature NMR, XRD and first-principles calculations  
*New J. Chem.* 2016, 40(5), 4178-4186.  
[COBISS.SI-ID 5835546]
26. C. Andrej Emanuel, D. Cahard, and B. Mohar.  
Stereoarrayed CF<sub>3</sub>-Substituted 1, 3-Diols by Dynamic Kinetic Resolution: Ruthenium (II)-Catalyzed Asymmetric Transfer Hydrogenation  
*Angew. Chem. Int. Ed.* 2016, 55(17), 5294-5298.  
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27. R. Slavko, B. Modec, M. Stephan, and B. Mohar  
γ-Sultam-cored N, N-ligands in the ruthenium (ii)-catalyzed asymmetric transfer hydrogenation of aryl ketones  
*Org. Biomol. Chem.* 2016, 14(6), 2112-2120.  
[COBISS.SI-ID 5860378]