

## Publications 2018

1.	<p>U. Javornik, J. Plavec, B. Wang and S. M. Graham</p> <p>A combined variable temperature 600 MHz NMR/MD study of the calcium release agent cyclic adenosine diphosphate ribose (cADPR): Structure, conformational analysis, and thermodynamics of the conformational equilibria</p> <p><i>Carbohydr. Res.</i> 2018, 455 (1), 71-80.</p>
2.	<p>A. Bistrovic, P. Grbcic, A. Harej, M. Sedic, S. Kraljevic Pavelic, S. Kostrun, J. Plavec, D. Makuc and S. Raic-Malic</p> <p>Small molecule purine and pseudopurine derivatives: synthesis, cytostatic evaluations and investigation of growth inhibitory effect in non-small cell lung cancer A549</p> <p><i>J. Enzyme Inhib. Med. Chem.</i> 2018, 33 (1), 271-285.</p>
3.	<p>I. S. Ozdemir, C. Dag, D. Makuc, E. Ertas, J. Plavec and S. Bekiroglu</p> <p>Characterisation of the Turkish and Slovenian extra virgin olive oils by chemometric analysis of the presaturation <sup>1</sup>H NMR spectra</p> <p><i>LWT-Food Sci. Technol.</i> 2018, 92, 10-15.</p>
4.	<p>P. Podbevsek, F. Fasolo, C. Bon, L. Cimatti, S. Reisser, P. Carninci, G. Bussi, S. Zucchelli, J. Plavec and S. Gustincich</p> <p>Structural determinants of the SINEB2 element embedded in the long non-coding RNA activator of translation AS Uchl1</p> <p><i>Sci. Rep.</i> 2018, 8, article number: 3189.</p>
5.	<p>R. Sket, T. Debevec, S. Kublik, M. Schloter, A. Schoeller, B. Murovec, K.F. Mikus, D. Makuc, K. Pecnik, J. Plavec, I.B. Mekjavic, O. Eiken, Z. Prevorsek and B. Stres</p> <p>Intestinal metagenomes and metabolomes in healthy young males: Inactivity and hypoxia generated negative physiological symptoms precede microbial dysbiosis</p> <p><i>Front. Physiol.</i> 2018, 9, article number: 198.</p>
6.	<p>M. Kozorog, M.-A. Sani, M. Lenarcic Zivkovic, G. Ilc, V. Hodnik, F. Separovic, J. Plavec and G. Anderluh</p> <p><sup>19</sup>F NMR studies provide insights into lipid membrane interactions of listeriolysin O, a pore forming toxin from <i>Listeria monocytogenes</i></p> <p><i>Sci. Rep.</i> 2018, 8, article number: 6894.</p>
7.	<p>M. Trajkovski, T. Endoh, H. Tateishi-Karimata, T. Ohyama, S. Tanaka, J. Plavec and N. Sugimoto</p> <p>Pursuing origins of (poly)ethylene glycol-induced G-quadruplex structural modulations</p> <p><i>Nucleic Acids Res.</i> 2018, 46 (8), 4301-4315.</p>

8.	S. Takahashi, K. T. Kim, P. Podbevsek, J. Plavec, B. H. Kim and N. Sugimoto Recovery of the formation and function of oxidized G-quadruplexes by pyrene-modified guanine-tract <i>J. Am. Chem Soc.</i> 2018, 140 (17), 5774-5783.
9.	B. Murovec, D. Makuc, S. Kolbl Repinc, Z. Prevorsek, D. Zavec, R. Sket, K. Pecnik, J. Plavec and B. Stres <sup>1</sup> H NMR metabolomics of microbial metabolites in the four MW agricultural biogas plant reactors: A case study of inhibition mirroring the acute rumen acidosis symptoms <i>J. Environ. Manage.</i> 2018, 222, 428-435.
10.	M. A. Desando, G. Lahajnar and J. Plavec Molecular interactions and mechanisms in the <sup>1</sup> H NMR relaxation of residual CHCl <sub>3</sub> in deuteriochloroform solution of a two-chain ionic surfactant <i>J. Solution Chem.</i> 2018, 47, 1246-1268.
11.	S. Bozic Abram, M. Marusic, M. Lenarcic Zivkovic, J. Brcic and J. Plavec Non-canonical structures in promoter modulate gene expression in Escherichia coli <i>Croat. Chem. Acta</i> 2018, 91(2), 163-170.
12.	F. Guo, Z. Yue, M. Trajkovski, X. Zhou, D. Cao, Q. Li, B. Wang, X. Wen, J. Plavec, Q. Peng, Z. Xi and C. Zhou Effect of Ribose Conformation on RNA Cleavage via Internal Transesterification <i>J. Amer. Chem. Soc.</i> 2018, 140 (38), 11893-11897.
13.	K. Pecnik, V. Todorovic, M. Bosnjak, M. Cemazar, I. Kononenko, G. Sersa and J. Plavec The General Explanation Method with NMR Spectroscopy Enables the Identification of Metabolite Profiles Specific for Normal and Tumor Cell Lines <i>ChemBioChem</i> 2018, 19 (19), 2066-2071.
14.	M. Lenarcic Zivkovic, J. Rozman and J. Plavec Adenine-driven structural switch from two- to three-quartet DNA G-quadruplex <i>Angew. Chem. Int. Ed.</i> 2018, 57 (47), 15395-15399. <i>Angew. Chem.</i> 2018, 130 (47), 15621–15625.
15.	A. Olusola, F. A. Olatoyinbo and J. Plavec Structural Studies of Oxidized Sweitenia mycophylla Gum. A potential candidate for green chemistry approaches in Pharmaceutical Application <i>J. Pharm. Appl. Chem.</i> 2018, 4 (3), 175-181.

16.	<p>S. Lukin, M. Tireli, I. Loncaric, D. Barisic, P. Sket, D. Vrsaljko, M. di Michiel, J. Plavec, K. Uzarevic and I. Halasz</p> <p>Mechanochemical carbon–carbon bond formation that proceeds via a cocrystal intermediate</p> <p><i>Chem. Comm.</i> 2018, 54(94), 13216-13219.</p>
17.	<p>J. Brčić and J. Plavec</p> <p>NMR structure of a G-quadruplex formed by four d(G4C2) repeats: insights into structural polymorphism</p> <p><i>Nucleic Acids Res.</i> 2018, 46 (21), 11605-11617.</p>
18.	<p>M. Popova, P. Shestakova, H. Lazarova, M. Dimitrov, D. Kovacheva, A. Szegedi, G. Mali, V. Dasireddy, B. Likozar, N. Wilde and R. Glaser</p> <p>Efficient solid acid catalysts based on sulfated tin oxides for liquid phase esterification of levulinic acid with ethanol</p> <p><i>Appl. Catal. A Gen.</i>, 560 (2018), pp. 119-131</p>
19.	<p>K. Molčanov, G. Mali, J. Grdadolnik, J. Stare, V. Stilinović and B. Kojić-Prodić</p> <p>Iodide... <math>\pi</math> interactions of perhalogenated quinoid rings in co-crystals with organic bases</p> <p><i>Cryst. Growth Des.</i>, 18(9), 5182-5193.</p>
20.	<p>A. Mavrič, M. Fanetti, G. Mali and M. Valant</p> <p>High-temperature stabilization of bulk amorphous Al<sub>2</sub>O<sub>3</sub></p> <p><i>J. Non-Cryst. Solids.</i> 499, 363-370.</p>
21.	<p>A. Konstantinidi, N. Naziris, M. Chountoulesi, S. Kiriakidi, B. Sartori, D. Kolokouris, H. Amentisch, G. Mali, D. Ntountaniotis, C. Demetzos and T. Mavromoustakos.</p> <p>Comparative Perturbation Effects Exerted by the Influenza A M2 WT Protein Inhibitors Amantadine and the Spiro [pyrrolidine-2, 2'-adamantane] Variant AK13 to Membrane Bilayers Studied Using Biophysical Experiments and Molecular Dynamics Simulations.</p> <p><i>J. Phys. Chem. B.</i> 122(43), 9877-9895.</p>
22.	<p>M. Počkaj, A. Meden, N. Z. Logar, M. Rangus, G. Mali, I. Lezcano-Gonzalez, A. M. Beale and A. Golobič</p> <p>Structural investigations in pure-silica and Al-ZSM-12 with MTEA or TEA cations. Microporous and Mesoporous Materials</p> <p><i>Microporous Mesoporous Mater.</i> 263, 236-242.</p>
23.	<p>C. Zhou, L. Longley, A. Krajnc, G. J. Smales, A. Qiao, I. Erucar, C. M. Doherty, A. W. Thornton, A. J. Hill, C. W. Ashling and O. T. Qazvini</p> <p>Metal-organic framework glasses with permanent accessible porosity. Nature communications</p> <p><i>Nat. Commun.</i> 9(1), 5042.</p>

24.	A. Qiao, T. D. Bennett, H. Tao, A. Krajnc, G. Mali, C. M. Doherty, A. W. Thornton, J. C. Mauro, G. N. Greaves and Y. Yue A metal-organic framework with ultrahigh glass-forming ability <i>Sci. Adv.</i> 4(3), eaa06827.
25.	A. Vyalikh, T. Köhler, T. Zakharchenko, D. M. Itkis, A. Krajnc and G. Mali Magnetic resonance spectroscopy approaches for electrochemical research <i>Physical Sciences Reviews</i> , 3(10).
26.	K. Pirnat, J. Bitenc, A. Vizintin, A. Krajnc and E. Tchernychova Indirect Synthesis Route toward Cross-Coupled Polymers for High Voltage Organic Positive Electrodes. <i>Chem. Mater.</i> 30(16), 5726-5732.
27.	Z. Dudás, E. Fagadar-Cosma, A. Len, L. Románszki, L. Almásy, B. Vlad-Oros, D. Dascălu, A. Krajnc, M. Kriechbaum and A. Kuncser Improved Optical and Morphological Properties of Vinyl-Substituted Hybrid Silica Materials Incorporating a Zn-Metalloporphyrin <i>Materials</i> , 11(4), 565.
28.	A. Anžlovar, M. Kunaver, A. Krajnc and E. Žagar Nanocomposites of LLDPE and Surface-Modified Cellulose Nanocrystals <i>Molecules</i> , 23(7), 1782.
29.	A. Romano, I. Roppolo, M. Giebler, K. Dietliker, Š. Možina, P. Šket, I. Mühlbacher, S. Schlögl* and M. Sangermano Stimuli-responsive thiol-epoxy networks with photo-switchable bulk and surface properties <i>RSC Advances</i> , 8(73), 41904-41914.
30.	M. Smiljkovic, MT. Matsoukas, E. Kritsi, U. Zelenko, S.G. Grdadolnik, R. C. Calhelha, I.C. Ferreira, S. Sankovic-Babic, J. Glamoclija, T. Fotopoulou and M. Koufaki Nitrate Esters of Heteroaromatic Compounds as <i>Candida albicans</i> CYP51 Enzyme Inhibitors <i>ChemMedChem</i> , 13(3), 251-258.
31.	J. Borišek, S. Pintar, M. Ogrizek, S.G. Grdadolnik, V. Hodnik, D. Turk, A. Perdih, and M. Novič Discovery of (phenylureido) piperidinyl benzamides as prospective inhibitors of bacterial autolysin E from <i>Staphylococcus aureus</i> <i>J. Enzyme Inhib. Med. Chem.</i> , 33(1), 1239-1247.