

Publications 2020

1.	<p>Mohan, Tamilselvan, Dobaj-Štiglic, Andreja, Beaumont, Marco, Konnerth, Johannes, Gürer, Fazilet, Makuc, Damjan, Maver, Uroš, Gradišnik, Lidija, Plavec, Janez, Kargl, Rupert, Stana-Kleinschek, Karin.</p> <p>Generic method for designing self-standing and dual porous 3D bioscaffolds from cellulosic nanomaterials for tissue engineering applications.</p> <p><i>ACS applied bio materials</i> 2020, 3 (2), 1197-1209.</p>
2.	<p>Šket, Robert, Deutsch, Leon, Prevoršek, Zala, Mekjavić, Igor B., Plavec, Janez, Rittweger, Joern, Debevec, Tadej, Eiken, Ola, Stres, Blaž.</p> <p>Systems view of deconditioning during spaceflight simulation in the PlanHab project: the departure of urine ¹H-NMR metabolomes from healthy state in young males subjected to bedrest inactivity.</p> <p><i>Frontiers in physiology</i> 2020, 11, art. no. 532271, 1-15.</p>
3.	<p>Li, Qiang, Chen, Jialiang, Trajkovski, Marko, Zhou, Yifei, Fan, Chaochao, Lu, Kuan, Tang, Pingping, Su, Xuncheng, Plavec, Janez, Xi, Zhen, Zhou, Chuanzheng.</p> <p>4'-Fluorinated RNA: synthesis, structure, and applications as a sensitive ¹⁹F NMR probe of RNA structure and function.</p> <p><i>JACS</i> 2020, 142 (10), 4739-4748.</p>
4.	<p>Ciobotaru, Iulia Corina, Crisan, Daniel Nicolae, Šket, Primož, Ciobotaru, Constantin Claudiu, Polosan, Silviu.</p> <p>Detailed molecular and structural analysis of dual emitter IrQ(ppy)₂ complex.</p> <p><i>Materials</i> 2020, 13 (7), 1617-1-1617-14.</p>
5.	<p>Kotar, Anita, Foley, Hannah N., Baughman, Kirk M., Keane, Sarah C.</p> <p>Advanced approaches for elucidating structures of large RNAs using NMR spectroscopy and complementary methods.</p> <p><i>Methods: A companion to Methods in enzymology</i> 2020, 183, 93-107.</p>
6.	<p>Manta, Konstantina, Papakyriakopoulou, Paraskevi, Chountoulesi, Maria, Diamantis, Dimitrios A., Spaneas, Dimitrios, Vakali, Vasiliki, Naziris, Nikolaos, Chatziathanasiadou, Maria V., Andreadelis, Ioannis, Moschovou, Kalliopi, Athanasiadou, Ioanna, Dallas, Paraskevas, Rekkas, Dimitrios M., Demetzos, Costas, Colombo, Gaia, Banella, Sabrina, Javornik, Uroš, Plavec, Janez, Mavromoustakos, Thomas Michael, Tzacos, Andreas G., Valsami, Georgia.</p> <p>Preparation and biophysical characterization of quercetin inclusion complexes with</p>

	<p>β-cyclodextrin derivatives to be formulated as possible nose-to-brain quercetin delivery systems.</p> <p><i>Molecular pharmaceutics</i> 2020, 17 (11), 4241-4255.</p>
7.	<p>Trajkovski, Marko, Plavec, Janez.</p> <p>Chasing particularities of guanine- and cytosine-rich DNA strands.</p> <p><i>Molecules</i> 2020, 25 (3), 434-1-434-18.</p>
8.	<p>Božič, Tim, Zalar, Matja, Rogelj, Boris, Plavec, Janez, Šket, Primož.</p> <p>Structural diversity of sense and antisense RNA hexanucleotide repeats associated with ALS and FTLT.</p> <p><i>Molecules</i> 2020, 25 (3), 525-1-525-14.</p>
9.	<p>Makuc, Damjan, Švab, Živa, Naumoska, Katerina, Plavec, Janez, Časar, Zdenko.</p> <p>Determination of D-cycloserine impurities in pharmaceutical dosage forms: comparison of the International Pharmacopoeia HPLC-UV method and the DOSY NMR method.</p> <p><i>Molecules</i> 2020, 25 (7), 1684-1-1684-15.</p>
10.	<p>Lenarčič Živković, Martina, Rozman, Jan, Plavec, Janez.</p> <p>Structure of a DNA G-quadruplex related to osteoporosis with a G-A bulge forming a pseudo-loop.</p> <p><i>Molecules</i> 2020, 25 (20), 4867-1-4867-16.</p>
11.	<p>Frelih, Tjaša, Wang, Baifan, Plavec, Janez, Šket, Primož.</p> <p>Pre-folded structures govern folding pathways of human telomeric G-quadruplexes.</p> <p><i>Nucleic acids research</i> 2020, 48 (4), 2189-2197.</p>
12.	<p>Pavc, Daša, Wang, Baifan, Spindler, Lea, Drevenšek Olenik, Irena, Plavec, Janez, Šket, Primož.</p> <p>GC ends control topology of DNA G-quadruplexes and their cation-dependent assembly.</p> <p><i>Nucleic acids research</i> 2020, 48 (5), 2749-2761.</p>
13.	<p>Kovačič, Matic, Podbevšek, Peter, Tateishi-Karimata, Hisae, Takahashi, Shuntaro, Sugimoto, Naoki, Plavec, Janez.</p>

	<p>Thrombin binding aptamer G-quadruplex stabilized by pyrene-modified nucleotides.</p> <p><i>Nucleic acids research</i> 2020, 48 (7), 3975-3986.</p>
14.	<p>Platella, Chiara, Trajkovski, Marko, Doria, Filippo, Freccero, Mauro, Plavec, Janez, Montesarchio, Daniela.</p> <p>On the interaction of an anticancer trisubstituted naphthalene diimide with G-quadruplexes of different topologies: a structural insight.</p> <p><i>Nucleic acids research</i> 2020, 48 (21), 12380-12393.</p>
15.	<p>Lengauer, Hannes, Makuc, Damjan, Šterk, Damjan, Perdih, Franc, Pichler, Arthur, Trdan Lušin, Tina, Plavec, Janez, Časar, Zdenko.</p> <p>Co-crystals, salts or mixtures of both? The case of tenofovir alafenamide fumarates.</p> <p><i>Pharmaceutics</i> 2020, 12 (4), 342-1-342-21.</p>
16.	<p>Harding, Robert, Pallada, Stavroula, Croese, Jared, Antušek, A., Baranowski, Mikolaj, Bissell, M. L., Cerato, Luca, Dziubinska-Kühn, K. M., Gins, W., Gustafsson, F. P., Javaji, A., Jolivet, R. B., Kanellakopoulos, A., Karg, Beatrice, Kempka, M., Kocman, Vojč, Kozak, Maciej, Kulesz, Karolina, Madurga Flores, Miguel, Neyens, Gerda, Pietrzyk, R., Plavec, Janez, Pomorski, M., Skrzypczak, Andrzej, Wagenknecht, Philipp, Wienholtz, F., Wolak, Joanna, Xu, Z., Zakoucky, Dalibor, Kowalska, Magdalena.</p> <p>Magnetic moments of short-lived nuclei with part-per-million accuracy: toward novel applications of β-detected NMR in physics, chemistry, and biology.</p> <p><i>Physical review X</i> 2020, 10 (4), 041061-1-041061-15.</p>
17.	<p>Umerani, Mehran J., Pratakshya, Preeta, Chatterjee, Atrouli, Cerna Sanchez, Juana A., Kim, Ho Shin, Ilc, Gregor, Kovačič, Matic, Magnan, Christophe, Marmioli, Benedetta, Sartori, Barbara, Kwansa, Albert L., Orins, Helen, Bartlett, Andrew W., Leung, Erica M., Feng, Zhijing, Naughton, Kyle L., Norton-Baker, Brenna, Phan, Long, Long, James, Allevato, Alex, Leal-Cruz, Jessica E., Lin, Qiyin, Baldi, Pierre, Bernstorff, Sigrid, Plavec, Janez, Yingling, Yaroslava G., Gorodetsky, Alon A.</p> <p>Structure, self-assembly, and properties of a truncated reflectin variant.</p> <p><i>Proceedings of the National Academy of Sciences of the United States of America</i> 2020, 117 (52), 32891-32901.</p>
18.	<p>Dlouhý, Ondřej, Kurasová, Irena, Karlický, Václav, Javornik, Uroš, Šket, Primož, Petrova, Nia Z., Krumova, Sashka B., Plavec, Janez, Ughy, Bettina, Špunda, Vladimír, Garab, Győző.</p> <p>Modulation of non-bilayer lipid phases and the structure and functions of thylakoid</p>

	<p>membranes: effects on the water-soluble enzyme violaxanthin de-epoxidase.</p> <p><i>Scientific reports</i> 2020, 10, 11959-1-11959-13.</p>
19.	<p>Jug, Urška, Naumoska, Katerina, Metličar, Valentina, Schink, Anne, Makuc, Damjan, Vovk, Irena, Plavec, Janez, Lucas, Kurt.</p> <p>Interference of oleamide with analytical and bioassay results.</p> <p><i>Scientific reports</i> 2020, 10, article no. 2163, 1-12.</p>
20.	<p>Galea, Claudia, Makuc, Damjan, Szaciłowski, Konrad, Plavec, Janez, Magri, David C.</p> <p>Synthesis and spectroscopic studies of diaza-8-crown-4-dinitrophenyl ethers.</p> <p><i>Supramolecular chemistry</i> 2020, 32 (1), 13-22.</p>
21.	<p>Kotar, Anita, Kocman, Vojč, Plavec, Janez.</p> <p>Intercalation of a heterocyclic ligand between quartets in a G-rich tetrahelical structure.</p> <p><i>Chemistry: A European Journal</i> 2020, 26 (4), 814-817.</p>
22.	<p>Van Velthoven, Niels, Henrion, Mickaël, Dallenés, Jesse, Krajnc, Andraž, Bugaev, Aram L., Liu, Pei, Bals, Sara, Soldatov, Alexander V., Mali, Gregor, Vos, Dirk De.</p> <p>S,O-functionalized metal-organic frameworks as heterogeneous single-site catalysts for the oxidative alkenylation of arenes via C-H activation.</p> <p><i>ACS catalysis</i> 2020, 10 (9), 5077-5085.</p>
23.	<p>Larina, Olga V., Shcherban, Nataliya D., Kyriienko, Pavlo I., Remezovskyi, Ivan M., Yaremov, Pavlo S., Khalakhan, Ivan, Mali, Gregor, Soloviev, Sergiy O., Orlyk, Svitlana M., Dzwigaj, Stanislaw.</p> <p>Design of effective catalysts based on ZnLaZrSi oxide systems for obtaining 1,3-butadiene from aqueous ethanol.</p> <p><i>ACS sustainable chemistry & engineering</i> 2020, 8 (44), 16600-16611.</p>
24.	<p>Van Den Bergh, Matthias, Krajnc, Andraž, Voorspoels, Stefan, Rodrigues Tavares, Sergio, Mullen, Steven, Beurroies, Isabelle, Maurin, Guillaume, Mali, Gregor, Vos, Dirk De.</p> <p>Highly selective removal of perfluorinated contaminants by adsorption on all-silica zeolite Beta.</p> <p><i>Angewandte Chemie</i> 2020, 59 (33), 14190-14194.</p>

25.	<p>Paraskevopoulou, Patrina, Smirnova, Irina, Athamneh, Tamara, Papastergiou, Maria, Chriti, Despoina, Mali, Gregor, Čendak, Tomaž, Chatzichristidi, Margarita, Raptopoulos, Grigorios, Gurikov, Pavel.</p> <p>Mechanically strong polyurea/polyurethane-cross-linked alginate aerogels.</p> <p><i>Applied polymer materials</i> 2020, 2 (5), 1974-1988.</p>
26.	<p>Machová, Dita, Mácová, Petra, Mali, Gregor, Velemínský, Petr, Viani, Alberto.</p> <p>Bone diagenesis in the loess deposits of Central Europe: the Celtic site of Radovesice in Bohemia.</p> <p><i>Archaeological and anthropological sciences</i> 2020, 12 (11), 257-1-257-14.</p>
27.	<p>Konstantinidi, Athina, Chountoulesi, Maria, Naziris, Nikolaos, Sartori, Barbara, Amenitsch, Heinz, Mali, Gregor, Čendak, Tomaž, Plakantonaki, Maria, Triantafyllakou, Iro, Tselios, Theodore V., Demetzos, Costas, Busath, David D., Mavromoustakos, Thomas Michael, Kolocouris, Antonios.</p> <p>The boundary lipid around DMPC-spanning influenza A M2 transmembrane domain channels: its structure and potential for drug accommodation.</p> <p><i>Biochimica et biophysica acta. Biomembranes</i> 2020, 1862 (3), 183156-1-183156-16.</p>
28.	<p>Fu, Guangxia, Cirujano, Francisco G., Krajnc, Andraž, Mali, Gregor, Henrion, Mickaël, Smolders, Simon, Vos, Dirk De.</p> <p>Unexpected linker-dependent Brønsted acidity in the (Zr)UiO-66 metal organic framework and application to biomass valorization.</p> <p><i>Catalysis science & technology</i> 2020, 10 (12), 4002-4009.</p>
29.	<p>Semsari Parapari, Sorour, Ateba Mba, Jean-Marcel, Tchernychova, Elena, Mali, Gregor, Arčon, Iztok, Kapun, Gregor, Gülgün, Mehmet Ali, Dominko, Robert.</p> <p>Effects of a mixed O/F ligand in the Tavorite-type LiVPO₄O₂LiVPO₄O structure.</p> <p><i>Chemistry of materials</i> 2020, 32 (1), 262-272.</p>
30.	<p>Stuyck, Wouter, Verduyck, Jasper, Krajnc, Andraž, Mali, Gregor, Vos, Dirk De.</p> <p>Selective defunctionalization of citric acid to tricarballic acid as a precursor for the production of high-value plasticizers.</p> <p><i>Green chemistry</i> 2020, 22, 7812-7822.</p>
31.	<p>Chang, Jin Hyun, Baur, Christian, Ateba Mba, Jean-Marcel, Arčon, Denis, Mali, Gregor, Alwast, Dorothea, Behm, R. Jürgen, Fichtner, Maximilian, Vegge, Tejs,</p>

	<p>Garcia-Lastra, Juan Maria.</p> <p>Superoxide formation in Li₂VO₂F/Li₂VO₂F cathode material - a combined computational and experimental investigation of anionic redox activity.</p> <p><i>Journal of materials chemistry A. Materials for energy and sustainability</i> 2020, 8 (32), 16551-16559.</p>
32.	<p>Muratović, Senada, Karadeniz, Bahar, Stolar, Tomislav, Lukin, Stipe, Halasz, Ivan, Herak, Mirta, Mali, Gregor, Krupskaya, Yulia, Kataev, Vladislav, Žilić, Dijana, Užarević, Krunoslav.</p> <p>Impact of dehydration and mechanical amorphization on the magnetic properties of Ni(II)-MOF-74.</p> <p><i>Journal of materials chemistry C. Materials for optical and electronic devices</i> 2020, 8 (21), 7132-7142.</p>
33.	<p>Ateba Mba, Jean-Marcel, Arčon, Iztok, Mali, Gregor, Tchernychova, Elena, Witte, Ralf, Kruk, Robert, Gaberšček, Miran, Dominko, Robert.</p> <p>Ceramic synthesis of disordered lithium rich oxyfluoride materials.</p> <p><i>Journal of power sources</i> 2020, 467, 228230-1-228230-11.</p>
34.	<p>Hou, Jingwei, Ríos Gómez, María Laura, Krajnc, Andraž, Mccaul, Aoife, Li, Shichun, Bumstead, Alice M., Sapnik, Adam F., Deng, Zeyu, Lin, Rijia, Chater, Philip A., Keeble, Dean S., Keen, David A., Appadoo, Dominique, Chan, Bun, Chen, Vicki, Mali, Gregor, Bennett, Thomas D.</p> <p>Halogenated metal-organic framework glasses and liquids.</p> <p><i>JACS</i> 2020, 142 (8), 3880-3890.</p>
35.	<p>Pliekhov, Oleksii, Pliekhova, Olena, Arčon, Iztok, Bondino, Federica, Magnano, Elena, Mali, Gregor, Zabukovec Logar, Nataša.</p> <p>Study of water adsorption on EDTA dealuminated zeolite Y.</p> <p><i>Microporous and mesoporous materials: zeolites, clays, carbons and related materials</i> 2020, 302, 110208-1-110208-7.</p>
36.	<p>Vercammen, Jannick, Bocus, Massimo, Neale, Sam, Bugaev, Aram L., Tomkins, Patrick, Hajek, Julianna, Minnebruggen, Sam Van, Soldatov, Alexander V., Krajnc, Andraž, Mali, Gregor, Speybroeck, Veronique Van, Vos, Dirk De.</p> <p>Shape-selective C-H activation of aromatics to biarylic compounds using molecular palladium in zeolites.</p>

	<i>Nature Catalysis</i> 2020, 3, 1002-1009.
37.	Paraskevopoulou, Patrina, Smirnova, Irina, Athamneh, Tamara, Papastergiou, Maria, Chriti, Despoina, Mali, Gregor, Čendak, Tomaž, Raptopoulos, Grigorios, Gurikov, Pavel. Polyurea-crosslinked biopolymer aerogel beads. <i>RSC advances</i> 2020, 10 (67), 40843-40852.
38.	Anžlovar, Alojz, Krajnc, Andraž, Žagar, Ema. Silane modified cellulose nanocrystals and nanocomposites with LLDPE prepared by melt processing. <i>Cellulose</i> 2020, 27 (10), 5785-5800.
39.	Androutsou, Maria-Eleni, Nteli, Agathi, Gkika, Areti, Avloniti, Maria, Dagkonaki, Anastasia, Probert, Lesley, Tselios, Theodore V., Golič Grdadolnik, Simona. Characterization of asparagine deamidation in immunodominant myelin oligodendrocyte glycoprotein peptide potential immunotherapy for the treatment of multiple sclerosis. <i>International journal of molecular sciences</i> 2020, 21 (20), 7566-1-7566-16.
40.	Papaemmanouil, Christina, Chatziathanasiadou, Maria V., Chatzigiannis, Christos M., Chontzopoulou, Eleni, Mavromoustakos, Thomas Michael, Golič Grdadolnik, Simona, Tzakos, Andreas G. Unveiling the interaction profile of rosmarinic acid and its bioactive substructures with serum albumin. <i>Journal of enzyme inhibition and medicinal chemistry</i> 2020, 35 (1), 786-804.