

## M.Sc. Sonia Bujok

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### Scientific publications:

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1. Marcovich, N. E., Kurańska, M., Prociak, A., Malewska, E., Bujok, S. (2017). The effect of different palm oil-based bio-polyols on foaming process and selected properties of porous polyurethanes. *Polymer International*, 66(11), 1522-1529 (IF= 2.574)
2. Beneš, H., Kredatusová, J., Peter, J., Livi, S., Bujok, S., Pavlova, E., Hodan, J., Abbrent, S., Konefał, M., Ecorchard, P. (2019). Ionic liquids as delaminating agents of layered double hydroxide during in-situ synthesis of poly (butylene adipate-co-terephthalate) nanocomposites. *Nanomaterials*, 9(4), 618 (IF=4.324)
3. Bujok, S., Konefał, M., Abbrent, S., Pavlova, E., Svoboda, J., Trhlíková, O., Walterová, Z., Beneš, H. (2020). Ionic liquid-functionalized LDH as catalytic-initiating nanoparticles for microwave-activated ring opening polymerization of  $\epsilon$ -caprolactone. *Reaction Chemistry & Engineering*, 5(3), 506-518 (IF=3.441)
4. Mielczarek, K., Łabanowska, M., Kurdziel, M., Konefał, R., Beneš, H., Bujok, S., Kowalski, G., Bednarz, S. (2020). High-Molecular-Weight Polyampholytes Synthesized via Daylight-Induced, Initiator-Free Radical Polymerization of Renewable Itaconic Acid. *Macromolecular rapid communications*, 41(4), 1900611 (IF=4.886)
5. Bujok, S., Hodan, J., Beneš, H. (2020). Effects of Immobilized Ionic Liquid on Properties of Biodegradable Polycaprolactone/LDH Nanocomposites Prepared by In Situ Polymerization and Melt-Blending Techniques. *Nanomaterials*, 10(5), 969 (IF=4.324)
6. Skleniářková, K., Viřková, V., Abbrent, S., Bujok, S., Paruzel, A., Kanizsová, L., Trhlíková, O., Říhová Ambrožová, J., Halecký, M., Beneš, H. (2021). Open-Cell Aliphatic Polyurethane Foams with High Content of Polysaccharides: Structure, Degradation, and Ecotoxicity. *ACS Sustainable Chemistry & Engineering*, 9(17), 6023–6032 (IF=7.632)
7. Bujok, S., Peter, J., Halecký, M., Ecorchard, P., Machálková, A., Santos Medeiros, G., Hodan, J., Pavlova, E., Beneš, H. (2021). Sustainable microwave synthesis of biodegradable active packaging films based on polycaprolactone and layered ZnO nanoparticles. *Polymer Degradation & Stability*, 190, 109625 (IF=4.032)
8. Bujok, S., Konefał, M., Konefał, R., Nevoralová, M., Bednarz, S., Mielczarek, K., Beneš, H. Insight into the aqueous Laponite® nanodispersions for self-assembled poly(itaconic acid) nanocomposite hydrogels: the effect of multivalent phosphate dispersants. *Journal of Colloid and Interface Science* – under review

### Patent applications:

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1. Beneš, H., Bujok, S., Paruzel, A., Zajícová, V., Hnátková, T., Busscher G., F., Schmeets A. A., J. Biodegradovatelná polyuretanová pěna, materiál na bázi biodegradabilní polyuretanové pěny pro produkci enzymů štěpících sacharidy, způsob jejich přípravy a jejich použití. PV 2020-32 (submitted 2020)
2. Beneš, H., Bujok, S., Paruzel, A., Zajícová, V., Hnátková, T., Busscher G., F., Schmeets A. A., J. Biodegradable polyurethane foam, biodegradable polyurethane foam-based material for saccharide-cleaving enzyme production, method of synthesis and use thereof. International PCT Patent Application, PCT/CZ2021/050007 (submitted 2021).

## Conference contributions:

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- Bujok, S., Beneš, H., Kredatusová, J., Konefał, M., Pavlova, E., Ecorchard, P.  
*Functionalization of layered double hydroxide for in-situ ring opening polymerization (poster)*  
9<sup>th</sup> Green Chemistry and Nanotechnologies in Polymeric Materials, Cracow, Poland, 10.-12.10.2018
- Bujok, S., Beneš, H., Konefał, M., Pavlova, E., Ecorchard, P.  
*Roles of LDH-ionic liquids in PCL nanocomposites preparation: in-situ polymerization vs. melt-intercalation (poster)*  
International Symposium: 6<sup>th</sup> Frontiers in Polymer Science, Budapest, Hungary, 5.-8.5.2019
- Beneš, H., Bujok, S., Skleniářková, K., Pražanová, K., Innemanová, P., Kanizsová, L., Halecký, M., Kočí, V  
*Polyurethane foams for environmental applications (presentation; co-author)*  
10<sup>th</sup> Green Chemistry and Nanotechnologies in Polymeric Materials, Riga, Latvia, 9.-11.10.2019
- Bujok, S., Konefał, M., Nováková, S., Pavlova, E., Svoboda, J., Trhlíková, O., Walterová, Z., Hodan, J., Beneš, H.  
*Roles of immobilized ionic liquid on synthesis and properties of biodegradable nanocomposites (presentation; co-author)*  
1<sup>st</sup> ECNP Workshop on Progress in Nanostructured Polymers, Lodz, Poland, 14.12.2020