

Hynek Beneš

List of Publications by Year in descending order

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papers

632
citations

567281

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37
times ranked

676
citing authors

#	ARTICLE	IF	CITATIONS
1	Biodegradability and ecotoxicity of polyurethane foams: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 157-202.	12.8	49
2	Rigid Polyurethane Foam Fabrication Using Medium Chain Glycerides of Coconut Oil and Plastics from End-of-Life Vehicles. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 6237-6246.	6.7	43
3	Glycolysis of flexible polyurethane foam in recycling of car seats. <i>Polymers for Advanced Technologies</i> , 2007, 18, 149-156.	3.2	39
4	Toughening of Epoxy/Ionic Liquid Networks with Thermoplastics Based on Poly(2,6-dimethyl-1,4-phenylene ether) (PPE). <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1153-1164.	6.7	32
5	Polyurethanes with bio-based and recycled components. <i>European Journal of Lipid Science and Technology</i> , 2012, 114, 71-83.	1.5	29
6	Recycling of waste poly(ethylene terephthalate) with castor oil using microwave heating. <i>Polymer Degradation and Stability</i> , 2013, 98, 2232-2243.	5.8	28
7	Polycyclic aromatic hydrocarbon accumulation in aged and unaged polyurethane microplastics in contaminated soil. <i>Science of the Total Environment</i> , 2021, 770, 145254.	8.0	28
8	Influence of ionic liquid-modified LDH on microwave-assisted polymerization of ϵ -caprolactone. <i>Polymer</i> , 2016, 100, 86-94.	3.8	26
9	Evaluation of the glycerolysis process and valorisation of recovered polyol in polyurethane synthesis. <i>Reactive and Functional Polymers</i> , 2019, 139, 25-33.	4.1	24
10	Synthesis and structural characterization of bio-based bis(cyclic carbonate)s for the preparation of non-isocyanate polyurethanes. <i>Polymer Chemistry</i> , 2021, 12, 1643-1652.	3.9	23
11	Mg-Al-La LDH-MnFe ₂ O ₄ hybrid material for facile removal of anionic dyes from aqueous solutions. <i>Applied Clay Science</i> , 2019, 169, 1-9.	5.2	22
12	Utilization of Natural Oils for Decomposition of Polyurethanes. <i>Journal of Polymers and the Environment</i> , 2012, 20, 175-185.	5.0	18
13	Ionic Liquid-Silica Precursors via Solvent-Free Sol-Gel Process and Their Application in Epoxy-Amine Network: A Theoretical/Experimental Study. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16474-16487.	8.0	17
14	Ionic Liquids as Delaminating Agents of Layered Double Hydroxide during In-Situ Synthesis of Poly (Butylene Adipate-co-Terephthalate) Nanocomposites. <i>Nanomaterials</i> , 2019, 9, 618.	4.1	17
15	Effects of Immobilized Ionic Liquid on Properties of Biodegradable Polycaprolactone/LDH Nanocomposites Prepared by In Situ Polymerization and Melt-Blending Techniques. <i>Nanomaterials</i> , 2020, 10, 969.	4.1	17
16	Development and Characterization of "Green Open-Cell Polyurethane Foams" with Reduced Flammability. <i>Materials</i> , 2020, 13, 5459.	2.9	16
17	Direct Comparison of Analogous Amphiphilic Gradient and Block Polyoxazolines. <i>Macromolecules</i> , 2021, 54, 8182-8194.	4.8	16
18	Sustainable microwave synthesis of biodegradable active packaging films based on polycaprolactone and layered ZnO nanoparticles. <i>Polymer Degradation and Stability</i> , 2021, 190, 109625.	5.8	16

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19	Medium chain glycerides of coconut oil for microwave-enhanced conversion of polycarbonate into polyols. <i>European Polymer Journal</i> , 2017, 86, 173-187.	5.4	15
20	Multifunctional and fully aliphatic biodegradable polyurethane foam as porous biomass carrier for biofiltration. <i>Polymer Degradation and Stability</i> , 2020, 176, 109156.	5.8	14
21	Thermoset-thermoplastic-ionic liquid ternary hybrids as novel functional polymer materials. <i>Polymer</i> , 2021, 218, 123507.	3.8	14
22	Preparation and characterization of organic/inorganic hybrid epoxy networks from reactive inorganic precursors. <i>Journal of Applied Polymer Science</i> , 2012, 125, 1000-1011.	2.6	12
23	Thermoresponsive properties of polyacrylamides in physiological solutions. <i>Polymer Chemistry</i> , 2021, 12, 5077-5084.	3.9	12
24	Influence of sol-gel conditions on the final structure of silica-based precursors. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 75, 649-663.	2.4	10
25	Ionic Liquids as Surfactants for Layered Double Hydroxide Fillers: Effect on the Final Properties of Poly(Butylene Adipate-Co-Terephthalate). <i>Nanomaterials</i> , 2017, 7, 297.	4.1	10
26	Microbial and abiotic degradation of fully aliphatic polyurethane foam suitable for biotechnologies. <i>Polymer Degradation and Stability</i> , 2021, 194, 109764.	5.8	10
27	Impact of Natural Oil-Based Recycled Polyols on Properties of Cast Polyurethanes. <i>Journal of Renewable Materials</i> , 2018, 6, 697-706.	2.2	9
28	Open-Cell Aliphatic Polyurethane Foams with High Content of Polysaccharides: Structure, Degradation, and Ecotoxicity. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6023-6032.	6.7	9
29	Solvent-free synthesis of reactive inorganic precursors for preparation of organic/inorganic hybrid materials. <i>Journal of Sol-Gel Science and Technology</i> , 2011, 59, 598-612.	2.4	8
30	Differently-catalyzed silica-based precursors as functional additives for the epoxy-based hybrid materials. <i>Polymer</i> , 2016, 99, 434-446.	3.8	8
31	Ionic liquid-functionalized LDH as catalytic-initiating nanoparticles for microwave-activated ring opening polymerization of ϵ -caprolactone. <i>Reaction Chemistry and Engineering</i> , 2020, 5, 506-518.	3.7	8
32	Poly(meth)acrylate nanocomposite membranes containing in situ exfoliated graphene platelets: Synthesis, characterization and gas barrier properties. <i>European Polymer Journal</i> , 2017, 94, 431-445.	5.4	7
33	Aqueous-Based Functionalizations of Titanate Nanotubes: A Straightforward Route to High-Performance Epoxy Composites with Interfacially Bonded Nanofillers. <i>Macromolecules</i> , 2018, 51, 5989-6002.	4.8	6
34	Fluorinated Ferrocene Moieties as a Platform for Redox-Responsive Polymer ^{19}F MRI Theranostics. <i>Macromolecules</i> , 2022, 55, 658-671.	4.8	6
35	Synergetic catalytic effect of carbon nanotubes and polyethersulfone on polymerization of glassy epoxy-based systems – isothermal kinetic modelling. <i>Thermochimica Acta</i> , 2014, 590, 107-115.	2.7	5
36	Self-Catalyzed Coupling between Brønsted-Acidic Imidazolium Salts and Epoxy-Based Materials: A Theoretical/Experimental Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 19050-19061.	6.7	5

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37	Polyurethane foams based entirely on recycled polyols derived from natural oils. Polimery, 2015, 60, 579-585.	0.7	4