

# CHEMISTRY UPDATE 11 April 2023

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|------------|-----------------------|---|
| <b>C1</b>  | Ahsan, Syaiful        | Camphoric acid-derived biobased (co)polyesters: Synthesis and enzymatic degradation (RuG)                       |
| <b>C2</b>  | Alves Freitas, Walber | Reuse of lignin and cellulose as a biobased alternative for synthetic composites (RuG)                          |
| <b>C3</b>  | Andrade, Roberto      | Inhibiting shuttle effect with polyelectrolyte complex modified membrane in Li-S batteries (RuG)                |
| <b>C4</b>  | Azhdari, Suna         | Fully biodegradable cubosome (UT)   |
| <b>C5</b>  | Benninga, Joël        | Enzymatic depolymerization of polyester blends (RuG)  |
| <b>C6</b>  | Burhani, Dian         | Preparation and characterization of PVA/nanocellulose composite membrane for microplastic removal (RuG)         |
| <b>C7</b>  | Chen, Mokun           | Construction of glycoassemblies by preparing duplex-responsive triblock glycopolymers (RuG)                     |
| <b>C8</b>  | Darikwa, Tinashe      | Exploring polymer architecture control for improved inhibitor release (TUD)                                     |
| <b>C9</b>  | Gao, Kai              | Lignin nanoparticles as highly efficient, recyclable emulsifiers for enhanced oil recovery (UT)                 |
| <b>C10</b> | Germain, Lieke        | Thiourea hydrogen bonded self-healing solid polymer electrolytes for Li-S batteries (RuG)                       |
| <b>C11</b> | Guo, Yunfei           | A mechanistic study of aromatic imide formation for high-performance poly(urethane imide)s (TU/e)               |
| <b>C12</b> | Guzik, Aleksander     | Hydrophobically modified block copolymer gelators based on electrostatically-driven self assembly (RuG)         |
| <b>C13</b> | Jongstra, Jesse       | Novel bio-based polyester(amides) synthesized from waste sugar beet pulp (RuG)                                  |
| <b>C14</b> | Kaymazlar, Elif       | Recyclable and self-healable reversible underwater adhesive PDMS (TUD)  |
| <b>C15</b> | Lemos de Morais, Ana  | Characterization of compounds based on biopolymer matrix with triethyl citrate (TEC) and lauric acid (LA) (RuG) |
| <b>C16</b> | Moreira Grilo, Luan   | Diels-Alder polymers based on renewable furanic cyclobutanes (RuG)  |
| <b>C17</b> | Pelras, Théophile     | Enzymatic synthesis of peptide oligomers from amino acids with hydrophobic side-groups (RuG)                    |

- C18** Poniatowska, Jadwiga Solvent separations with cholesteric liquid crystalline polymer membranes (TU/e)
- C19** Post, Cornelis Biobased 2,5-bis(hydroxymethyl)furan as a building block for sustainable polyesters (RuG)
- C20** Qiu, Xia Dextrin-based thermo-responsive hydrogels (RuG)
- C21** Silvianti, Fitrilia Enzymatic synthesis of furanic-aliphatic polyesters: Isomeric substitution effects (RuG)
- C22** Sun, Siwen Engineering transient dynamics of artificial cells by stochastic distribution of enzymes (TU/e)
- C23** Thomou, Eleni Evaluation of additives' effect on PET recycling (RuG)
- C24** Türel, Tankut Chemically recyclable epoxy resins derived from biorenewable resources (TU/e)
- C25** Wang, Changlin Closed-loop recyclable high performance polyimine aerogels derived from bio-based resources (TU/e)
- C26** Wink, Roy Increased stability for phosphate ester dynamic covalent networks (TU/e)
- C27** Yesil Gur, Isil Development of nanoreactors for polyolefin recycling (TU/e)
- C28** Zhang, Tao Recyclable polyurethane-based photoresin for 3D printing based on dynamic covalent bonds (RuG)
- C29** Zhang, Yuxuan Single-ion conducting electrolytes for safe and efficient lithium batteries using poly(allyl-glycidyl-ether) (RuG)

## BIOMEDICAL UPDATE 11 April 2023

- B1** Brock, Kimberly Thiol-mediated coupling chemistry as a crosslinking method to prepare dynamic, self-healing hydrogels (UT)
- B2** Guo, Yunqi Preparation of Hybrid Nanomotors for Efficient Tumor Therapy (TU/e)
- B3** Li, Rui Contact killing by covalently immobilized cationic hydrophilic antibacterial coatings on titanium due to electrostatic stress (RuG)
- B4** Li, Yudong Facile Preparation of Rapamycin-loaded PEG-PLA Nanoparticles for Immunotherapy (TU/e)
- B5** Wu, Xixi Melt electro-written scaffolds enriched in fluorescent nanodiamonds for improved mechanical properties and degradation monitoring (RuG)

## PHYSICS & THEORY UPDATE 11 April 2023

- P1** Raja, Anand Trends in the Consistency Index of Screened and Unscreened Concentrated Biopolymer Systems (TUD)
- P2** Ritsema van Eck, Guido Anomalous vapor swelling in polymer brushes (UT)
- P3** Veldscholte, Lars Vapour sorption in polydisperse polymer brushes (UT)

# TECHNOLOGY UPDATE 11 April 2023

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|------------|----------------------|---|
| <b>T1</b>  | Bahçeci, Ekrem       | Leveraging morphology for design of complex materials for 4D printing: Towards resolving two interacting ellipsoids using AI (TU/e) |
| <b>T2</b>  | Berlo van, Frank     | Focused ultrasound 3D printing (TU/e)   |
| <b>T3</b>  | Broek van, Sten      | Crack growth in isotactic Polypropylene: Effect of molecular weight and temperature (TU/e)  |
| <b>T4</b>  | Geveling, Rosa       | PEEK: from structure to properties (TU/e)   |
| <b>T5</b>  | Gracht van den, Coen | Surface deformation of rheologically complex fluids upon air jet impingement (TU/e)   |
| <b>T6</b>  | Heugten van, Paul    | Structural performance of reversible dynamic materials (TU/e)   |
| <b>T7</b>  | Maaskant, Evelien    | Renewable pigments based on carbohydrates and agro residues (WUR)   |
| <b>T8</b>  | Milatz, Roland       | Designer polydopamines for surface engineering (UT)   |
| <b>T9</b>  | Rai, Parajal         | Modeling and measuring local rheological properties of soft materials using magnetic microstructures (TU/e)                         |
| <b>T10</b> | Tavaststjerna, Miisa | Low-icing surfaces - The effect of patterning on surface freezing mechanisms (TUD)  |
| <b>T11</b> | Vogelzang, Willem    | Assessment of the mechanical recycling potential of dynamic covalent thermoset with near-identical matrices (WUR)                   |