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List of publications

- 1) **Roig, A.**; Wang, H.; Du Prez, F. E. Turning Down The Heat: Catalyst-Free, Low-Temperature Chemical Degradation of Thermoplastic Polyurethanes. *Polym. Chem.* **2025**, 16, 4834-4842.
- 2) **Roig, A.**; Verdugo, P.; Montané, X.; Serra, À. Mechanism of Reversible Chemical Bond Exchange in Biobased Epoxy Vitrimer in “*Biobased Epoxy Vitrimer Composites – Design, Manufacture, Properties, Applications and Environmental Impacts*”, 1st Ed. Elsevier, **2025**.
- 3) Maiheu, T.; Kassem, H.; **Roig, A.**; Kolb, N.; Azzawi, A.; Du Prez, F. E. Debondable Polyurethane-Inspired Adhesives Using Malonate-Formed Amide Chemistry. *Eur. Polym. J.* **2025**, 239, 114286.
- 4) **Roig, A.***; Padilla, J.; De la Flor, S. Serra, À. Biobased Poly(Amido-Imide) CANs Catalyzed by Lanthanide Triflates: High Creep Resistance and Superior Reprocessability. *Eur. Polym. J.* **2025**, 24, 113700.
- 5) Vilanova-Pérez, A.; Surós, M.; Serra, À.; De la Flor, S.; **Roig, A.*** Custom-Shaped Malleable, Recyclable and Reversible Structural Adhesives Based on Vanillin Polyimine Vitrimers. *React. Funct. Polym.* **2025**, 206, 106109.
- 6) Vilanova-Pérez, A.; De la Flor, S.; Fernández-Francos, X.; Serra, À.; **Roig, A.*** Biobased Imine Vitrimers Obtained by Photo and Thermal Curing Procedures – Promising Materials for 3D Printing. *ACS Appl. Polym. Mater.* **2024**, 6, 3364-3372.
- 7) **Roig, A.**; Ramis, X.; De la Flor, S.; Serra, À. Eugenol-Based Dual-Cured Materials with Multiple Dynamic Exchangeable Bonds. *Eur. Polym. J.* **2024**, 206, 112782.
- 8) Vilanova-Pérez, A.; Moradi, S.; Konuray, O.; Ramis, X.; **Roig, A.***; Fernández-Francos, X. Harnessing Disulfide and Transesterification Bond Exchange Reactions for Recyclable and Reprocessable 3D-Printed Vitrimers. *React. Funct. Polym.* **2024**, 195, 105825.
- 9) **Roig, A.**; D’Agostino, V.; Serra, À.; De la Flor, S. Towards Fast Relaxation Rates and Creep Resistance in Disulfide Vitrimer-Like Materials. *React. Funct. Polym.* **2023**, 193, 105764.
- 10) **Roig, A.**; Ramis, X.; De la Flor, S.; Serra, À. Dual-Cured Thermosets Based on Eugenol Derivatives and Thiol Chemistry. *Eur. Polym. J.* **2023**, 200, 112499.
- 11) **Roig, A.**; Molina, L.; Serra, À.; Santiago, D.; De la Flor, S. Structural Reversible Adhesives Based on Thiol-Epoxy Vitrimers. *Polym. Test.* **2023**, 128, 108205.
- 12) **Roig, A.**; Agizza, M.; De la Flor, S.; Serra, À. Disulfide Vitrimeric Materials Based on Cystamine and Diepoxy Eugenol as Bio-Based Monomers. *Eur. Polym. J.* **2023**, 194, 112185.
- 13) Konuray, O.; Moradi, S.; **Roig, A.**; Fernández-Francos, X.; Ramis, X. Thiol-ene Networks with Tunable Dynamicity for Covalent Adaptation. *ACS Appl. Polym. Mater.* **2023**, 5, 1651-1656.
- 14) **Roig, A.**; Hidalgo, P.; Ramis, X.; De la Flor, S.; Serra, À. Vitrimeric Epoxy-Amine Polyimine Networks Based on a Renewable Vanillin Derivative. *ACS Appl. Polym. Mater.* **2022**, 4, 9341-9350.
- 15) Casadó, J.; Konuray, O.; **Roig, A.**; Fernández-Francos, X.; Ramis, X. 3D Printable Hybrid Acrylate-Epoxy Dynamic Networks. *Eur. Polym. J.* **2022**, 173, 111256.
- 16) **Roig, A.**; Petrauskaite, A.; Ramis, X.; De la Flor, S.; Serra, À. Synthesis and Characterization of New Bio-Based Poly(Acylhydrazone) Vanillin Vitrimers. *Polym. Chem.* **2022**, 13, 1510-1519.

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18) Roig, A.; Ramis, X.; De la Flor, S.; Serra, À. Dual-Cured Thermosets From Glycidyl Methacrylate Obtained by Epoxy-Amine Reaction and Methacrylate Homopolymerization. *React. Funct. Polym.* **2021**, *159*, 104822.

19) Bensabeh, N.; Moreno, A.; **Roig, A.;** Rahimzadeh, M.; Rahimi, K.; Ronda, J. C.; Cádiz, V.; Galià, M.; Percec, V.; Rodríguez-Emmenegger, C.; Lligadas, G. Photoinduced Upgrading of Lactic Acid-Based Solvent to Block Copolymer Surfactants. *ACS Sustainable Chem. Eng.* **2020**, *8*, 1276-1284.

20) Bensabeh, N.; Moreno, A.; **Roig, A.;** Monaghan, O. R.; Ronda, J. C.; Cádiz, V.; Galià, M.; Howdle, S. M.; Lligadas, G.; Percec, V. Polyacrylates Derived from Biobased Ethyl Lactate Solvent via SET-LRP. *Biomacromolecules* **2019**, *20*, 2135-2147.