

Istituto di Scienze e Tecnologie Chimiche "Giulio Natta"



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C SCITEC So





From residue to products and materials







Biobased thermoplastic polymers form vegetable oils



https://doi.org/10.1038/s41586-020-03149-9



Bio-based resins from vegetable oils





Styrene-free resins with ore than 80% of biobased carbon based on vegetable oils, terpenes and organic acids



MICS Partenariato esteso finanziato dall'Unione Europea programma NextGenerationEU, Piano Nazionale di Ripresa e Resilienza (PNRR)





Lignocellulosic stream deconstruction and transformation

From lignocellulose to platforms







Challenges

- Separation of lignocellulosis components (organic waste!)
- Valorization of high added values molecules (antioxidant, antimicrobial)
- Combination of enzymes, microrganisms in fermentation
- Valorization of fermentation waste





LUCRA EU Project: Bio Succinic Acid from OFMSW



LUCRA project proposes to demonstrate biotechnological and green processes to produce biobased succinic acid using waste feedstock and its use in innovative materials.

SCITEC will use **BIOBASED SUCCINIC ACID** as **BUILDING BLOCK** for the synthesis of elastomeric polyesters





RigenerA





Valorisation of milk whey components, particularly proteins and lactose, into monomers and biopolymers





THANK YOU



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