

## **Conference on CO<sub>2</sub>-based Fuels and Chemicals 2024**

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### **CO<sub>2</sub>-based inorganic and organic carbonates to green up construction and transport sectors**

Dr. Cecilia Mondelli, Sulzer Chemtech

Significant efforts are underway to reduce the hard-to-abate carbon emissions in the construction sector and to promote a shift in raw materials in the production of plastics and battery solvents. A key strategy involves capturing and utilizing CO<sub>2</sub> to generate inorganic and organic carbonates.

Sulzer is collaborating with Blue Planet Systems to develop a mineralization process that permanently sequesters CO<sub>2</sub> in synthetic limestone, i.e. calcium carbonate. By capturing 440 kg of CO<sub>2</sub> in every tonne of aggregates produced, this technology unlocks net-negative concrete production, thus offering a carbon sink for the built environment.

Concerning organic carbonates, Sulzer has conceived a method to purify industrially produced CO<sub>2</sub>-based organic carbonates to electronic grade with superior atom and energy efficiency. This solution supports a broader application of these products as electrolytes in lithium-ion batteries, and hence the decarbonization of the transport sector through electrification.