Situated Green Chemistries

The Nitrogen cycle, and ammonia production specifically offer a privileged entry point to discuss the role of catalysis, current scenarios for the energy transition and the importance of planetary boundaries framework to shape a Sustainable Planet and Society [1].



The discussion of the nitrogen cycle from this point of view will offer a perspective on catalysis scenarios adapted to the energy transition and more largely to the Anthropocene epoch, leading to the introduction of the "situated green chemistries" framework [2] which attempts to combine chemistry, systems analysis and social sciences.

[1] Mathieu S. Prévot, Valeria Finelli, Xavier Carrier, Gabriele Deplano, Margherita Cavallo, Elsje Alessandra Quadrelli, Juliette Michel, Marie-Hélène Pietraru, Clément Camp, Giulia Forghieri, Anna Gagliardi, Sebastian Seidel, Antoine Missemer, Bertrand Reuillard, Barbara Centrella, Silvia Bordiga, María Grace Salamanca González, Vincent Artero, Keanu V. A. Birkelbach, Niklas von Wolff. Chem. Sci., 2024,15, 9054-9086

[2] (a) "What is « Sustainable Green Chemistry » Through systems thinking?" "GREEN CHEMISTRY" GORDON CONFERENCE " Lecture, Casteldefels (Spain), 28 July, 2022; (b) in French subtitled https://www.youtube.com/watch?v=gpDhpgy2U9g (c) manuscript in preparation.