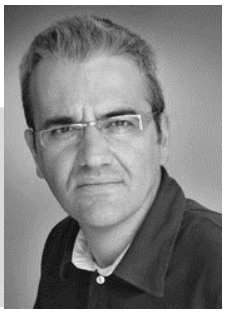
The Chemist's Interactions

Seminars @ the Chemistry Department

LIVE STREAM h 14.30

Friday, 21st January 2022

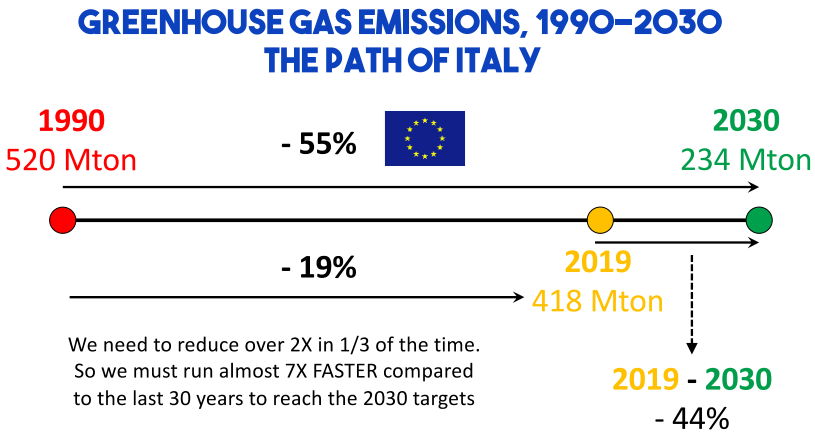


Nicola Armaroli

CNR-ISOF, Bologna

A Difficult Energy Transition

The transition from fossil fuels to renewable energy is the key tool to reduce greenhouse gas emissions and fight climate change. The two cornerstones of the transition are energy efficiency and electrification of end uses. The latter is particularly relevant for the transport and building sectors. In this context, it is useful to critically analyze the prospects of the hydrogen vector, which can be rationally used only in some specific contexts. The targets set by the European Union for the reduction of greenhouse emissions for 2030 (Figure) and 2050 highlight the need to act very quickly. An epochal energy transition to be completed in just thirty years is a huge challenge and the next ten years will be crucial. An analysis of the many technical, economic and social bottlenecks along the way will be made. The energy transition is not only a challenge, but also an enormous opportunity for scientific and technological advancement, particularly for the chemical sciences.



Rerences

[1] N. Armaroli, A. Barbieri, Nat. Italy **2021**, doi: 10.1038/d43978-021-00109-3; [2] N. Armaroli, *Emergenza Energia – Non abbiamo più tempo,* Edizioni Dedalo, **2021;** [3] S. Gao, B. Balan, K. Yoosaf, F. Monti, E. Bandini, A. Barbieri, N. Armaroli, *Chem. Eur. J.* **2020**, *26*, 11013; [4] F. Monti, A. Barbieri, N. Armaroli, *Substantia* **2019**, *3(2)*, 75; [5] N. Armaroli, V. Balzani, *Chem. Eur. J.* **2016**, *22,* 32; [6] N. Armaroli, V. Balzani, N. Serpone, "*Powering Planet Earth. Energy Solutions for the Future*", Wiley-VCH, **2013;** [7] N. Armaroli, V. Balzani, "*Energy for a sustainable world. From the oil age to a sun-powered future*"Wiley-VCH, **2011**

zoom

This is a Virtual Seminar and will be broadcast with the Zoom software

For registrations: valentina.colombo@unimi.it

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