Daniele Leonori is a Chair of Organic Chemistry at RWTH Aachen University, where he focuses on the development of novel synthetic methods using halogen-atom transfer (XAT) and excited nitroarene reactivity.

1) **Halogen-atom transfer (XAT).** Organic halides are valuable building blocks for the generation of alkyl and aryl radicals. However, their applications in photoredox catalysis can be difficult owing to their very negative reduction potentials. I will present our recent work focused on the use of α-aminoalkyl radicals as XAT mediators for the homolytic activation of alkyl iodides and bromides and their application in synthesis. Furthermore, I will discuss a non-canonical activation mode in XAT that eludes both kinetic and thermodynamic control.

2) **Photoexcited nitroarenes.** Nitroaromatics are widely available feedstocks that are routinely used for the preparation of anilines. I will present our most recent work that demonstrates how these species can be used, upon blue light irradiation, to promote the ozonolysis-style cleave of olefins and also, in a skeletal editing logic, to allow preparation of complex and highly functionalized azepanes.

**References.**
6. R. Mykura, R. Sanchez, V. Duong, J. Llaveria, A. Ruffoni and D. Leonori, unpublished results.