

N°967 /

TOPIC(s) : Homogenous, heterogenous and biocatalysis / Biomass conversion

Studying reaction mechanisms on surfaces such as in (bio)ethanol conversion to butadiene, N<sub>2</sub> splitting, and photoactive 2D materials growth.

## AUTHORS

Elsje Alessandra QUADRELLI / CNRS CPE LYON, 43, BD DU 11 NOVEMBRE 1918, VILLEURBANNE

## PURPOSE OF THE ABSTRACT

Molecularly precise monometallic coordination centers on surfaces can be obtained by surface organometallic chemistry. The presentation will detail recent advancement on how some of these systems, considered models for single-atom heterogeneous catalysts (SAC), have helped shed light on mechanisms underpinning the bio-refinery relevant Ethanol-to-butadiene conversion. Further examples, applied to the growth of 2D materials like MoS<sub>2</sub> and other Transition Metal Dichalcogenide (TMD) in an Atomic Layer deposition (ALD)- like process will be given, as well as their application toward the development of active phases for the electro or photo - reduction of H<sup>+</sup> and N<sub>2</sub>.

## FIGURES

FIGURE 1

FIGURE 2

---

KEYWORDS

---

BIBLIOGRAPHY