



David Farrusseng

Born in Montpellier France in 1972
PhD from The University of Montpellier, France, in 1999
Post-Doc MPI für Kohlenforschung, Germany, in 2000
Full position at CNRS, Lyon, France, in 2001
Habilitation Diploma from the University of Lyon in 2007
Research Director at CNRS in 2024
Team leader at IRCELYON in 2015

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PROFESSIONAL MEMBERSHIP/AWARDS

- President of the *International Association of Catalysis Societies* (IACS)
- Chairman of the *18th International Catalysis Conference* (ICC)
- Silver Medal of CNRS
- Associate Editor of *New Journal of Chemistry* (RSC)
- IACS Award of the *International Association Catalysis Societies*
- Member of the editorial committee of *ChemCatChem* (Wiley)
- DIVCAT Award from the *French Chemical Society*

SELECT RECENT PUBLICATIONS

1. Methane pyrolysis into hydrogen and solid carbon: A comparative analysis of conventional and microwave heating approaches

V. L'hospital, LG. de Araujo, E. Landrison, A. Mello, M. Radoiu, V. Trillaud,, JF. Meunier, Y. Schuurman, N. Guilhaume, D. Farrusseng, *Catalysis Today*, 2025, <https://doi.org/10.1016/j.cattod.2025.115430>

2. Upscaled Al-Fumarate Synthesis and Shaping by Spray Drying

M. Perbet, T. Aumond, C. Collomb, C. Daniel, I. Imaz, G. Pena, D. Maspoch, T. Michon, R. Morales-Ospino, V. Fierreo, E. Quadrelli, D. Farrusseng, *Industrial & Engineering Chemistry Research*, 2025, **64**(12), 6541-6549

3. Direct biogas reforming to turquoise H₂ and carbon material in a catalytic fluidised-bed reactor

V. L'hospital, LG. de Araujo, Y. Schuurman, N. Guilhaume, D. Farrusseng, *New Journal of Chemistry*, 2024, **48**(21), 9656-9662

4. Oxidative coupling of biogas to ethylene over a trilobe-shaped Mn-Na₂WO₄/α-Al₂O₃ catalyst in a single-pellet reactor

V. L'hospital, J. Guillemot, R. Beucher, T. Michon, D. Bonnet, Y. Schuurman, N. Guilhaume, D. Farrusseng, *Applied Catalysis A -General*, 2023, **666**, 119402

5. On the link between CO surface coverage and selectivity to CH₄ during CO₂ hydrogenation over supported cobalt catalysts

T. Bredy, D. Farrusseng, Y. Schuurman, FC Meunier, *Journal of Catalysis*, 2022, **411**, 93-96

6. Rhodium-Based Metal-Organic Polyhedra Assemblies for Selective CO₂ Photoreduction

AC. Ghosh, A. Legrand, R. Rajapaksha, G. Craig, C. Sassoie, G. Balazs, D. Farrusseng, S. Furukawa, J. Canivet, F. Wisser, *Journal of the American chemical Society*, **144**(8), 3626-3636

7. Surface effect of nano-sized cerium-zirconium oxides for the catalytic conversion of methanol and CO₂ into dimethyl carbonate

C. Daniel, Y. Schuurman, D. Farrusseng, *Journal of Catalysis*, 2021, **394**, 486-494

URL

<https://www.ircelyon.univ-lyon1.fr/en/team/catalyst-and-process-engineering/>

Title of the lecture

Methane to H₂ and carbon by catalytic pyrolysis

Keywords : Circular economy, fluidized bed, microwave heating, kinetic modelling, graphite, turquoise hydrogen