

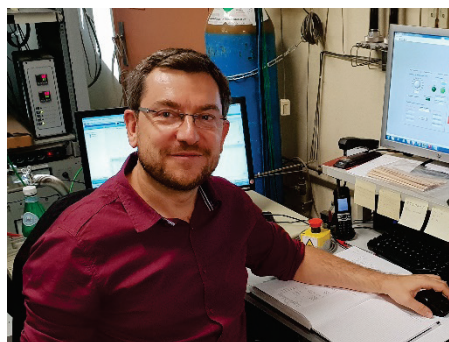
## Dr. Laurent Christian PICCOLO

CNRS Researcher

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### Resume

Dr. Laurent Piccolo is a materials scientist graduated from Aix-Marseille University. He obtained his PhD in 1999 with a thesis on supported model catalysis in Dr. C.R. Henry's group. After a post-doc at CEA Saclay (Paris), he was recruited as a CNRS researcher at the *Institut de Recherches sur la Catalyse et l'Environnement de Lyon* (IRCELYON) in 2001, and defended his "research supervision habilitation" on surface science applied to gold catalysis in 2007. He was recently a visiting scientist at the Technical University of Barcelona. He is currently deputy head of the Energy department in IRCELYON. LP has contributed to the fields of intermetallic surfaces, gold catalysts, nanoalloys (member of the International Research Network on Nanoalloys), and bifunctional catalysts for applications to CO conversion, selective hydrogenation and fuel upgrading. His current interest concerns metal ultradispersion (leader of the ANR UltraCat research program) – including single-atom catalysis – for energy applications such as hydrogen production and CO<sub>2</sub> valorization, with a particular focus on structure-function relationships through *operando* techniques.

### Metrics

- 82 international peer-reviewed articles (50 as corresponding author)
- 3 book chapters
- 210 communications (10 invited lectures)
- H index 31, 2500+ citations

### Selected publications

- **Structural effects of the chemical environment in metal nanocatalysis and single-atom catalysis** L. Piccolo *Catal. Today*, in press (invited review)
- **Dynamics of single Pt atoms on alumina during CO oxidation monitored by *operando* X-ray and infrared spectroscopies** C. Dessal *et al.* *ACS Catal.* **9**, 5752 (2019)
- **Catalytic properties of Al<sub>13</sub>TM<sub>4</sub> complex intermetallics: influence of the transition metal and the surface orientation on butadiene hydrogenation** L. Piccolo *et al.* *Sci. Technol. Adv. Mater.* **20**, 557 (2019) (invited article)
- **Synergy between hydrogen and ceria in Pt-catalyzed CO oxidation: an investigation on Pt-CeO<sub>2</sub> catalysts synthesized by solution combustion** F. Morfin *et al.* *Appl. Catal. B* **197**, 2 (2016) (invited article)
- **Surface studies of catalysis by metals: nanosize and alloying effects** L. Piccolo in *Nanoalloys: Synthesis, Structure and Properties*, Springer-Verlag, London, pp. 369-404 (2012)