

COMBUSTION WEBINAR

Ammonia, the 'other' hydrogen for clean ICE

Speaker: Prof. Christine Rousselle, University of Orléans

Time: 9:00 ET, May 29 2024 (6:00 PT; 15:00 Paris; 21:00 Beijing)

Zoom meeting link: <https://gatech.zoom.us/j/91816529221>

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COMBUSTION
WEBINAR



Biography: Prof. Christine Rousselle is professor at the University of Orléans (Laboratoire PRISME). Her main research fields are: fundamental combustion to applications, new combustion modes (lean burn, LTC, RCCI,...), low and zero carbon-fields (ammonia, alcohols, low-carbon fuels), described by using optical diagnostics, and with some focuses for engines. She has held positions at the International Energy Agency (IEA) as representative of France and as chair/co-chair of the IEA Clean and Efficient Combustion Technical collaborative program. She is a member of the Scientific Council of IFP-EN. She is a Fellow of the Combustion Institute (2021), Associate Editor of the proceedings of the Combustion Institute and the Journal of Ammonia Energy. She was chair of [2nd Symposium on Ammonia Energy](#), held at University of Orléans in July 2023. She is ambassador of ASME-ICE. She also has chaired the mini-symposium about ammonia spray in the International Conference of Numerical Combustion (Kyoto, Mai 2024).

Abstract: The objective to reach neutral carbon footprint in 2050 accelerates the energy transition. Industries and scientists collaborate for developing zero CO₂ emission solutions for all energy sectors: power, transport and industry. Hydrogen and hydrogen derived fuels, 'e-fuels' will play an important role. Ammonia, one of the simplest electro fuels, is a promising candidate as energy and hydrogen carrier, but it can also be used directly as a zero-carbon fuel, pure or mixed with hydrogen or biofuels. However, the combustion properties of ammonia are far from those of conventional fuels and are not well known. During this talk, the state of art of ammonia combustion in internal combustion engines will be presented with focus on the remaining challenges.

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