

COMBUSTION WEBINAR

Ammonia combustion from the fundamentals to applications

Speaker: Thibault Guiberti, KAUST

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Biography: Dr. Thibault Guiberti is a research scientist at the Clean Combustion Research Center at KAUST, in Saudi Arabia. He received a Ph.D. in Energy from Centrale-Supelec, France, in 2015. He received the Habilitation to direct research from University of Toulouse 2, France, in 2020. His research interests include turbulent reactive flows and optical diagnostics. With his research, Thibault hopes to contribute to the promotion of carbon-free fuels, such as hydrogen and ammonia, in practical combustion devices. He has recently received the Distinguished Paper award in the Diagnostics colloquium of the 38th International Symposium on Combustion.

Abstract: The energy sector's decarbonization is a complex process and includes different approaches aiming for the stepwise movement to a low carbon mobility future. Ammonia as an alternative fuel is considered essential to this transition as an energy carrier, a carbon-free molecule with high energy density, and its production and distribution infrastructure is well-established. With the traditional NH_3 production, green ammonia production highlights the importance of further development to implement ammonia as a building block in the global low-carbon energy landscape. To this end, my talk will focus on ammonia combustion from the fundamentals to applications.

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