

Ammonia, the ‘other’ hydrogen for clean ICE

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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 still not well known especially for engine relevant conditions. During this talk, the state of art of ammonia combustion in internal combustion engines will be presented with focus on the remaining challenges.