





Special Issue Reprint

Advanced Research in Combustion Energy

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Recent research and development activities aimed at achieving sustainable energy conversion include the development of new energy-conversion devices, alongside the optimization of existing ones. Advanced research on combustion energy is vital for taking full advantage of alternative fuels such as hydrogen, ammonia, and biofuel. This Special Issue focuses partially on zero- and low-carbon fuels and related carbon-neutral combustion technologies. This includes the analysis and optimization of the performance of combustion devices that are designed either to run on 100% non-conventional renewable fuels or to be fuel-flexible, meaning they use up to 100% renewable fuels. One unique challenge for a fuel-flexible combustion engine is the co-optimization of higher-efficiency engines and high-performance fuels while being 100% renewable fuel compliant. The other aspect on which this Special Issue is focused is the optimization of combustion engines for alternative fuels and their application. This Special Issue presents state-of-the-art research and innovation in combustion energy, from fundamental analysis and optimization to practical applications.





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