

## **Addition agents effects on hydrocarbon fuels burning**

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### **Abstract**

Literature review on addition agents effects on hydrocarbon fuels burning has been conducted. The impact results in flame pattern and burning velocity change, energy efficiency increase, environmentally harmful NO<sub>x</sub> and CO emission reduction and damping of self-oscillations in flow. An assumption about water molecules dissociation phenomenon existing in a number of practical applications and being neglected in most explanations for physical- chemical processes taking place in case of injection of water/steam into combustion zone has been noted. The hypothesis about necessity of water dissociation account has been proposed. It can be useful for low temperature combustion process control and NO<sub>x</sub> emission reduction.

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