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NO_x EMISSIONS OF A NATURAL GAS FIRED STEAM BOILER USING OXYCOMBUSTION

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Abstract

Oxycombustion is a promising technique in terms of opportunities for improving performance of combustion plants. In this context, the use of oxycombustion in boilers can be a positive development, especially when it comes to the combustion of lower quality fuels. The paper aims to studying the NO_x emissions from a natural gas fired steam boiler for different percentages of oxygen in the combustion air, of up to 100%. For this, an original model was developed for calculating the combustion with dissociation, which has been applied to the studied boiler.

Key words: NO_x emissions, oxycombustion, pollution, steam boilers

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