



“Gheorghe Asachi” Technical University of Iasi, Romania



REDUCING OF POLLUTANTS EMISSIONS AND HEAVY LIQUID FUELS CONSUMPTION IN BOILERS BY USING OF ADDITIVES

Aurel Gaba¹, Ștefania Iordache¹, Mircea Vlădescu¹, Dan Ungureanu¹, Petrică Vizureanu^{2*}

¹*Valahia University of Târgoviște, 130024 Targoviste, Romania*

²*“Gh. Asachi” Technical University of Iasi, 700050 Iasi, Romania*

Abstract

The paper presents the experimental results, obtained using a pilot installation and hot-water boilers for reducing the pollutants emissions in combustion of heavy liquid fuels by using of additives for catalyzing of burning processes.

The experiments were made using additives based on iron and cerium carboxylates. Experimental results, which are presented both in variant of heavy liquid fuels burning with additives and without additives, highlight the reducing of pollutants emissions having in view that by using of additives, it can be reduced the coefficient of excess of air. Also, there are presented experimental results obtained on industrial boilers, which highlight reducing of pollutants emissions and heavy liquid fuels consumption in condition of using additives.

Key words: additives, boilers, burning, pollutants

* Author to whom all correspondence should be addressed: e-mail: peviza@tuiasi.ro