VANADIUM OXIDE (V_2O_5) DeNO$_X$ CATALYST IN THE STATIONARY FLUE GAS:

TEMPERATURE PROGRAMMED REDUCTION CHARACTERIZATIONS

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DECLARATION

" I hereby declare that this thesis is the result of my own work except for quotations and summaries which have been duly acknowledged."

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ABSTRACT

The purpose of this study is to analyze the reduction properties of vanadium pentoxide (V_2O_5) as catalyst with aluminum oxide (Al_2O_3) and silicon dioxide (SiO_2) as catalyst carrier. The reduction properties will be examined through Temperature Programmed Reduction (TPR). This experiment will have different calcinations temperature to obtain the suitable calcinations temperature for flue gas treatment. The preparation of the catalyst sample and the experiment will be discuss later in this thesis. This thesis will also describe the result of reaction of catalyst to the nitrous gases (NO_x) as these gases are dangerous and contribute to global warming. The result shows that at the percent loading of 2% of Vanadium Oxide, V_2O_5 the calcinations temperature of 450°C the reducibility characteristics of catalyst is good. Its shows that the catalyst can be used to reduce the NO_x.

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