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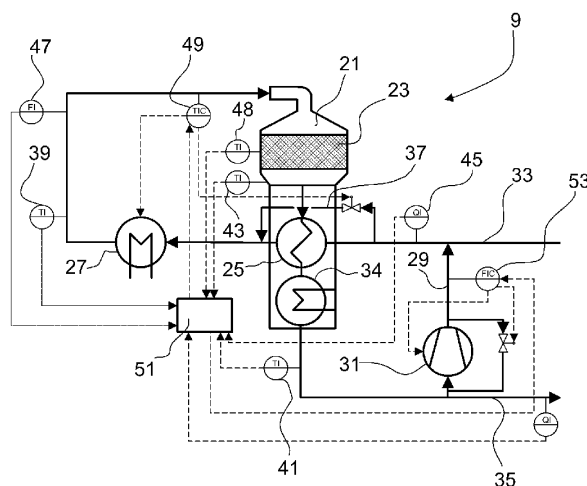
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(54) Title: PROCESS FOR WORKING-UP A NITROUS OXIDE COMPRISING OFF-GAS STREAM

FIG.2



(57) Abstract: The invention relates on a process for working-up a nitrous oxide comprising off-gas stream from a production process of adipic acid by decomposing the nitrous oxide contained in the off- gas stream into nitrogen and oxygen in a fixed bed reactor (21) of a N₂O decomposition unit (9) at a temperature in the range from 430 to 800°C to obtain a purified gas, wherein for controlling the N₂O decomposition unit (9) a nonlinear model predictive control is used which is based on a reactor model of the fixed bed reactor based on equations of energy transport and species transport for nitrogen, oxygen and N₂O.

[Continued on next page]



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