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(54) Title: METHOD AND SYSTEM FOR PROCESS CONTROL

(57) Abstract: The present invention relates to a method for controlling a chemical process, wherein the chemical process is one or more of the preparation of methanol, hydrogen sulfide, methyl mercaptan, hydrocyanic acid, acrolein, 3-methylthiopropionaldehyde, 5-(2-methylmercaptoethyl)-hydantoin, methionine, a salt of methionine, and a derivative of methionine, comprising the steps of a) providing a training set TS1, wherein said training set TS1 comprises process values PV1 and process values PV2 being correlated to one another, and/or laboratory values LV1 and process values PV2 being correlated to one another, b) training a processing unit on the training set TS1 of step a) to identify a pattern of correlation between one or more measured process variables and at least one process variable, and developing a calibration function CFI for a calibrated soft sensor from the identified pattern of correlation, c) predicting at least one operating parameter for the chemical process as approximation to LV1 and/or PV1, d) calculating a deviation as being the difference between the operating parameter predicted and the corresponding laboratory value LV1 and/or the processing value PV1 of the training set TS1 of step a), e) proceeding with step f) if the deviation calculated in step d) exceeds a threshold value, otherwise proceeding with step g), f) re-calibrating the soft sensor of step b), g) writing the at least one operating parameter predicted into the DCS, and h) repeating the steps c) to g).



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