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(54) **Exhaust gas control apparatus and control method for exhaust gas control apparatus**

(57) An exhaust gas control apparatus includes a control device that controls a urea addition valve for adding urea from an upstream side of a NO_x reduction catalyst. The control device obtains an ammonia adsorption amount distribution through the NO_x reduction catalyst, and when an ammonia adsorption amount in a predeter-

mined part on an exhaust gas flow direction downstream side equals or exceeds a predetermined threshold, the control device controls the urea addition valve to stop the urea supply or reduce the amount of urea supply. The urea addition valve is controlled basis on an adsorption amount distribution obtained from a model on which the

catalyst is divided into a plurality of cells such that an ammonia adsorption amount in a first cell positioned furthest upstream equals or exceeds a predetermined threshold close to a saturation adsorption amount and

an ammonia adsorption amount in a second cell positioned downstream of the first cell reaches a predetermined target value that is smaller than the threshold.

FIG. 6

