

DESULFATION PROCESS OF A NO_x ADSORBER CATALYST SYSTEM: DEVELOPMENT OF A DESULFATION STRATEGY FOR A NO_x ADSORBER CATALYST

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The aggressive reduction of future diesel engine NO_x emission limits forces light- and heavy-duty diesel engine manufacturers to develop means to comply with this stringent legislation. As a result, different exhaust emission control technologies applicable to NO_x emitted by diesel engines are the subject of various investigations. One of these systems is the NO_x adsorber catalyst, which has shown high NO_x conversion rates during previous investigations while remaining with-in agreed to fuel consumption penalties. In addition to

this, other than the catalyst, this type of NO_x emission control device does not require additional on-board fluids. However, at the same time, the NO_x adsorber catalyst also represents the most sulfur sensitive emission control device currently available.

To remove the sulfur introduced into the system through the diesel fuel and stored on the catalyst sites during operation, specific regeneration strategies and boundary conditions were investigated and developed.