

SCR on Filter

NOx and PM control on one substrate

SCR on Filter controls NOx (nitrogen oxides) and PM (particulate matter or soot) emissions from diesel engines, on a single substrate.

Technology

This technology combines two components into one:

- SCR (Selective Catalytic Reduction) which reduces NOx to nitrogen and water in the presence of a reductant, such as AdBlue® by BASF, a high purity urea solution
- DPF (Diesel Particulate Filter) which filters the PM

Operation

- Urea is injected upstream of the SCR on Filter and is hydrolyzed to ammonia
- NOx in the exhaust stream reacts with ammonia in the presence of the SCR catalyst to produce nitrogen and water

The exhaust flows through the SCR on Filter where PM is filtered

- The use of a filter may require active soot regeneration in order to keep the back-pressure of the system at the designed level. This is achieved via the engine management system by injecting excess fuel into the exhaust system, which is oxidized over the DOC (Diesel Oxidation Catalyst). The heat generated accelerates the burning of soot collected in the filter
- An AMOX (Ammonia Oxidation) catalyst can be added to remove any excess ammonia

Benefits

The advantages of BASF's SCR on Filter technology include:

- BASF's advanced zeolite SCR technology has superior durability to better withstand active filter regeneration
- Performance similar to SCR and DPF performance on separate components

Elimination of a substrate can save space and weight



About Us

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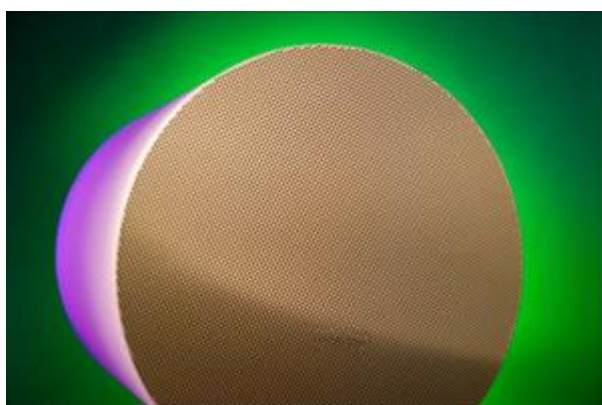
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