Evaluation of SCR and DOC/CPF Tech in Diesel Exhaust Emission Control to Meet U.S. Tier 2 Bin 5

Poster Location P-3

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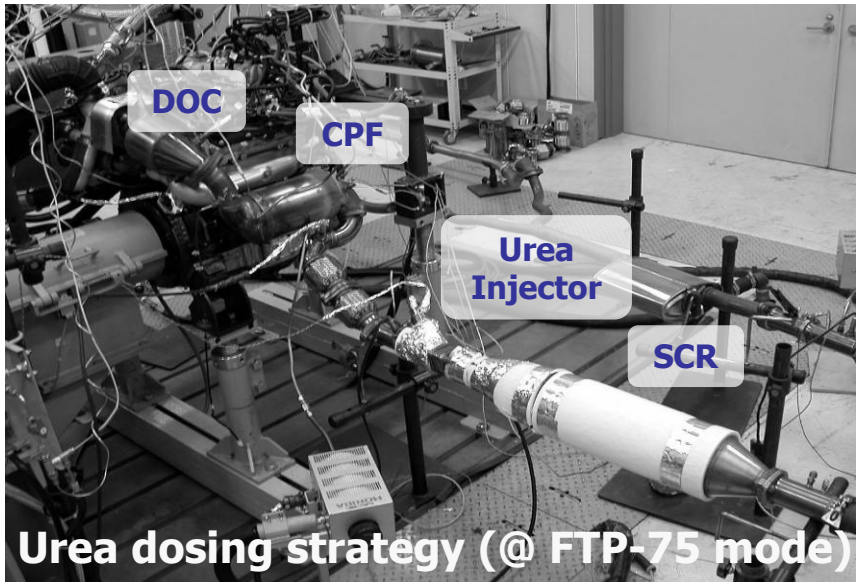
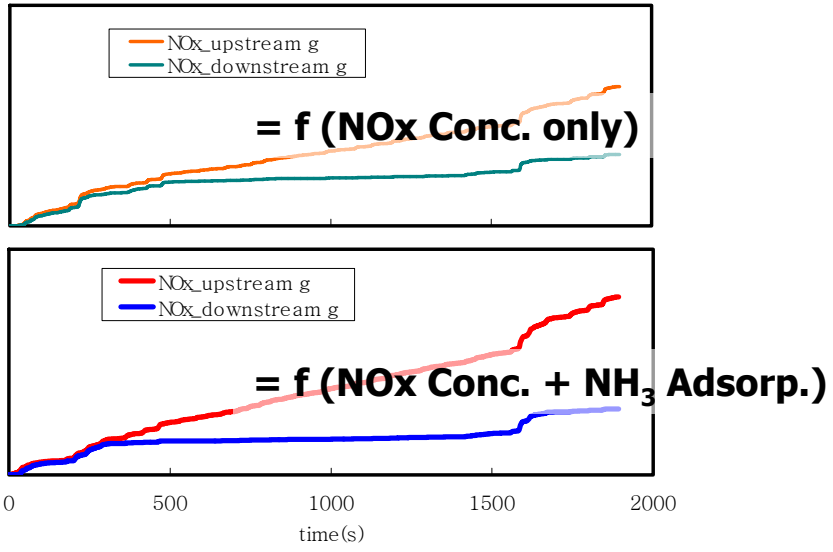
Hyundai-Kia Motors

SCR Concept to Meet U.S. Tier 2 Bin 5





To ensure the emission stability for high NOx conversions over full useful life.

- Performance of the urea-SCR system
  - Urea dosing strategy,
  - urea uniformity,
  - NO_2/NOx ratio,
  - Fresh and aged catalysts,
  - HC poisoning,
  - Soot loading in CPF and so on.
- In particular,
  The NO_2/NOx ratio is reduced due to a CRT (Continuous Regeneration Trap) effect in the CPF.
  - Irreversibly negative effect on the NOx removal efficiency of SCR system.
  - The amount of the reduced NO_2 after CPF increases gradually as the quantity of PM accumulated in CPF increases.