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Garimella et al.

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(54) **SYSTEMS, METHODS, AND APPARATUS FOR REDUCTANT DOSING IN AN SCR AFTERTREATMENT SYSTEM**

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(52) **U.S. Cl.**
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See application file for complete search history.

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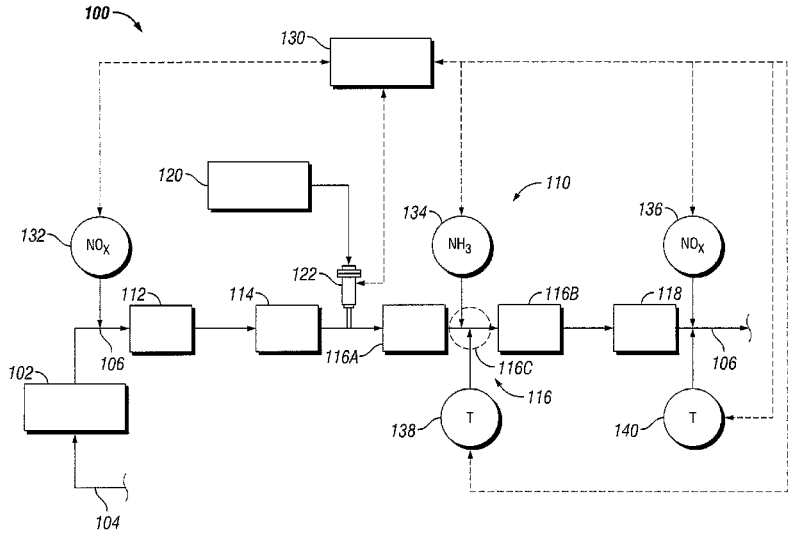
(57) **ABSTRACT**

Systems, methods and apparatus disclosed that include an internal combustion engine and an exhaust system that includes an exhaust aftertreatment system with an SCR catalyst. A NO_x sensor downstream of the SCR catalyst is provided along with techniques for estimating an amount of NO_x and NH3 at the tailpipe to decouple the impact of cross-sensitivity of the NO_x sensor to NO_x and NH3. Feedback control of the reductant dosing amount based on these estimates is also provided.

18 Claims, 8 Drawing Sheets