A New Low-Cost Measurement Platform for Urea Quality Monitoring

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- Versatile sensor platform for in-line spectral measurement of fluids
  - Spectral methods – correlate to concentration and material ID
  - Benefit – reliable and low cost

- Platform adapted as a real-time, in-line Urea Quality for SCR
  - 18 month development
  - Input from major OE
  - Validated in OE test lab
Specifications defined for Urea Quality based on input from end-users and vehicle/Engine OEs

1. Provides positive ID for AdBlue (32.5% urea) and water
2. Provides a calibrated output as %Urea at normal temperatures
3. Differentiates AdBlue from contaminants and wrong fluids...Coolant and Fuel.
4. Detect the incidence of an empty fluid line
5. Provide a positive ID for AdBlue at temperatures up to 65°C
6. Designed for operating pressures including hard frost

Platform can be expanded to include other relevant emissions control and compliance measurements