

## The trend of global emission standards on diesel engines and catalyst technology developments

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Emission control catalyst technologies for heavy duty diesel engines including the oxidation catalyst, selective catalytic reduction, and diesel particulate have been successfully developed, commercialized, and widely applied on various applications of diesel engines such as on-road, off-road, marine, and locomotive in the last decade. In addition, similar catalyst technologies are being applied onto natural gas engines and have a bright future with sustainable growth. Due to the growing concerns and demands of cleaner air quality along with stringent government regulations, these sentiments have fueled the growth of emission control catalysts. However, technical and commercial difficulties still exist. Many problems and unknowns need to be identified and resolved through scientific studies to further improve catalyst performance and durability. This talk will discuss the status of global emission regulations, trend of catalyst technology developments, and technical challenges to be overcome.