Highly selective NOx reduction for diesel engine exhaust via an electrochemical system - DTU Orbit (29/12/2018)

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It is challenging to reduce the nitrogen oxides (NOx) in diesel engine exhaust due to the inhibiting effect of excess oxygen. In this study, a novel electrochemical deNOx system was developed, which eliminated the need for additional reducing materials or a sophisticated controlling system as used in current diesel after-treatment techniques. The electrochemical system consisted of an electrochemical cell modified with NOx adsorbents and a diesel oxidation catalyst placed upstream of the cell. The system offers highly selective NOx reduction and a strong resistance to oxygen interference with almost zero emission of secondary pollutants.

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