2012 DEER Conference @ Dearborn, MI (Oct. 18, 2012)

Poster location: P-06

Metal-supported De-NOx SCR Catalysts Prepared by Room Temperature Aerosol Deposition for Potential Marine Applications

Room Temp. Vacuum Powder Spray Deposition for Nano-structured Catalyst Coating with Strong Adherence

Joon-Hwan Choi,

J. Ryu, J-J. Choi, W-H. Yoon, B-D. Hahn, J-W. Kim, C-W. Ahn, D-S. Park

Korea Institute of Materials Science (KIMS)

Ho-Jung Ha, Jong-Dae Han

Changwon National University

Gyubaek Cho

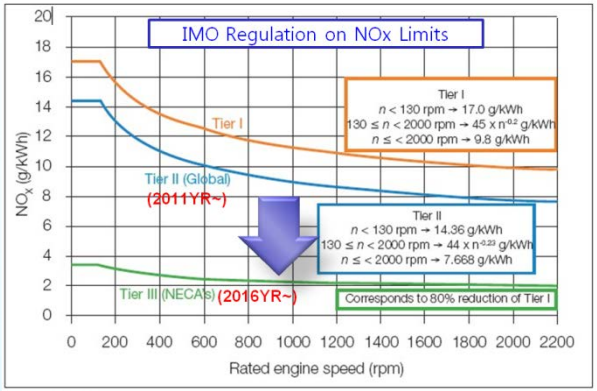
Korea Institute of Machinery & Materials (KIMM)

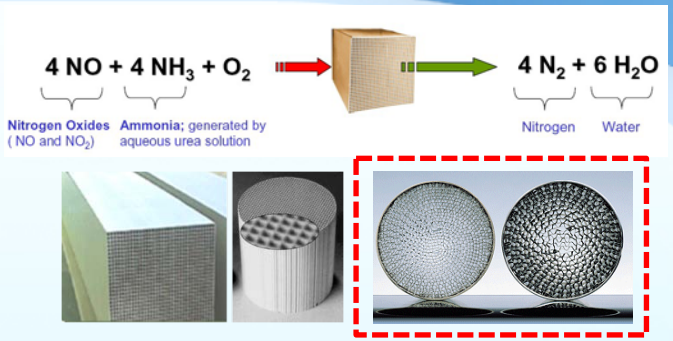
KIMS Korea Institute of Materials Science

Poster location: P-06

Metal-supported De-NOx SCR Catalyst Coated by AD

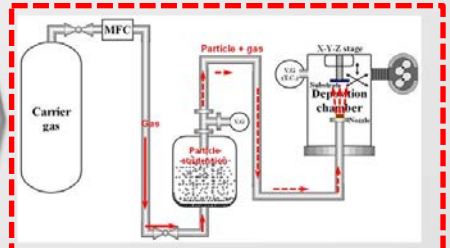
Korea Institute of Materials Science



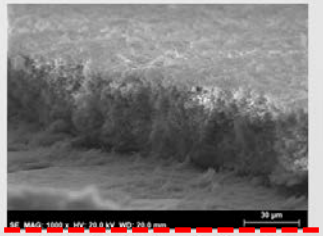


Research Approach

Catalyst Powder Synthesis & Treatment



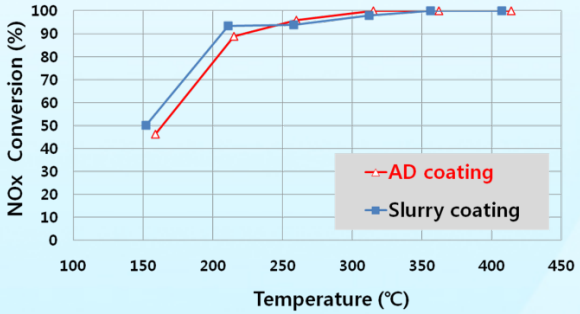
Aerosol Deposition (AD) at Room Temperature



Durable Catalyst Coating with Strong Adhesion Strength to Metal Substrate

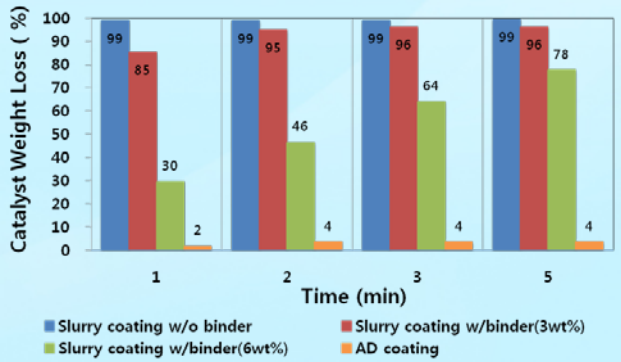
Catalytic Converter Fabrication

De-NOx SCR Test of Fe-ZSM5 Catalyst Coated by AD



The AD-coated sample shows excellent De-NOx performance with NO_2 comparable with the conventional slurry-coated sample!

Mechanical Durability of Fe-ZSM5 Catalyst Coated by AD



The AD-coated samples have excellent mechanical durability even with very high catalyst loading showing very strong adhesion strength to the substrate!

Poster location: P-06