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e Nanosistemi

Defective BiOX structures for efficient photocatalytic NO_x removal

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aula Delta 1B, Scientific Campus Via Torino 155,
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Air pollution is one of the most serious challenges for human beings. Nitric oxide (NO) is a common gaseous pollutant, which mainly originates from fossil fuels utilization and response to the formation of haze and photochemical smog. Trace-level nitrogen oxides can cause damage to the lungs, heart, liver, and kidneys, seriously endangering the respiratory system and leading to adverse issues for human health. Therefore, the development of efficient and economical technologies to

eliminate atmospheric NO has become a global concern. As photocatalysis is shown to be a potent and versatile tool to control environmental pollution, bismuth oxyhalides with the layered structure could be a good option to abate the low concentration of NO in the atmosphere.

Exploring the catalytic activity and associated structural-morphological features of BiOX semiconducting materials to reach the highest efficiency are the major points of our talks in this presentation.