

NO and SO₂ removal in TiO₂-coated glass beads packed bed plasma reactor

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We analyzed the simultaneous NO and SO₂ removal in the dielectric barrier discharge process combined with photodegradation, changing several process conditions such as applied peak voltage, initial NO concentration and residence time on NO and SO₂ removal efficiencies. We used the dielectric packed-bed cylinder-wire type reactor for NO and SO₂ removal. To consider photocatalytic effect on NO and SO₂ removal, glass beads were coated with TiO₂ using dip-coating method. As applied voltage and residence time increase or initial NO concentration decreases, NO and SO₂ removal efficiencies increase.