Photocatalytic Degradation of Methylene blue and Acetaldehyde by TiO₂/Glaze Coated Porous Red Clay Tile

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Methylene blue with the high concentration of 150 mg/ ℓ on the surface of TiO2/glaze coated PRC tile was almost photodegradated within 5 hours under the condition of average UV intensity of the 0.275 mW/cm2, while no photodegradation reaction of methylene blue occurred on the glaze only coated PRC tile. The photodegradation efficiency showed about 77 % from 45,480 mg/ ℓ to 10,536 mg/ ℓ after the UV irradiation of 14 hours, on the other hand, about 16 % in case of the glaze only.