Effect of Ozone on the Decomposition of Bisphenol A Using UV/TiO_2/UF Submerged Hollow Fiber Membrane Hybrid System

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Bisphenol A (BPA) is widely used as a raw material for epoxy and polycarbonate resins. It has been suspected to act as an endocrine disruptor (ED). The development of removal methods of ED is an urgent problem as well as a worldwide concern. Photocatalytic reactions using TiO_2 particles have been extensively studied for wastewater treatment since most harmful and toxic organic pollutants can be completely mineralized because of the strong oxidizing power of the photogenerated holes of TiO_2. In the present study, we investigated the effect of ozonation prior to UV/TiO_2 operation. Results showed that TiO_2 dose was highly dependent on the extent of ozonation.