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Abstract

Diethyl phthalate (DEP) degradation by graphite supported metal oxide catalytic ozonation in aqueous solution was conducted. The activity and stability of graphite supported ZnO (ZnO/graphite) catalyst, the effects of preparation parameters and operational conditions on the activity of ZnO/graphite, and the mechanism of DEP degradation by ZnO/graphite catalytic ozonation were studied. ZnO/graphite has the highest activity on ozonation of DEP among the MnO_x, FeO_x, CrO_x, CoO_x, NiO_x and ZnO supported on graphite catalysts, and it keeps excellent catalytic activity during reuse. ZnO/graphite catalyst prepared with 3.5% loading of zinc and calcined at 573

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