

Catalytic Complete Oxidation of Ethylene Dichloride over Cu/AlTi Composite Catalyst

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Chlorinated volatile organic compounds (CVOCs) are regarded as hazardous air pollutants. Catalytic oxidation was developed long time ago, but still the most widely used for CVOCs removal. An important point is that it is not just about reducing CVOCs, but also about transforming it correct form. If they were mishandled, polychlorinated hydrocarbons and carbon monoxide, more toxic than original CVOCs, can be emitted. Thus, catalytic material with high selectivity for oxidation reaction should be developed. In this study, ethylene dichloride (EDC) catalytic complete oxidation reaction was investigated over  $\text{CuO}_x$  catalyst supported on Al-Ti mixed oxide. The Cu/AlTi catalyst showed high activity with excellent selectivity for catalytic complete oxidation of EDC because of the synergistic effect associated with abundant acidic and textural property of support material and highly reducible feature of active material.