Preparation of phthalic anhydride and catalyst for this purpose

Abstract

In a process for preparing phthalic anhydride by catalytic gas-phase oxidation of o-xylene or naphthalene or o-xylene/naphthalene mixtures with a gas comprising molecular oxygen over a coated catalyst comprising an inert, nonporous support material on which a catalytically active composition comprising titanium dioxide and vanadium pentoxide is applied in layer form, a catalyst whose catalytically active composition comprises from 3 to 6% by weight of vanadium pentoxide, calculated as V_2O_5, from 0.3 to 0.5% by weight of a cesium compound, calculated as Cs, and the remainder to 100% by weight of titanium dioxide in the anatase modification is used in the presence or absence of a coated catalyst, differing therefrom, for the catalytic gas-phase oxidation of o-xylene or naphthalene or o-xylene/naphthalene mixtures and, in the presence of such a second catalyst, the latter is used in a combined bed with the catalyst of the above composition in the reactor.