

Methane formation in ethylbenzene and isopropylbenzene oxidation

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Abstract

In commercial production conditions of ethylbenzene oxidation to hydroperoxide in its oxidation reactor along with the exhaust air methane and hydrogen formed by disproportionation of alkoxide radicals are removed. In the case of isopropylbenzene oxidation in the exhaust gas methane is contained in a somewhat smaller amount. Distinct correlation was found between the composition of the exhaust air and liquid products of oxidation, which enables automatic detection of speed and selectivity, as well as better control and management of production of isopropylbenzene hydroperoxide and ethylbenzene.