

Abstract**Process for preparing MMA in high yields**

The present invention relates to a process for preparing methyl methacrylate by direct oxidative esterification of methacrolein having elevated yields compared to the prior art. Methyl methacrylate is used in large amounts for preparing polymers and copolymers with other polymerizable compounds. In addition, methyl methacrylate is an important synthesis unit for a variety of specialty esters based on methacrylic acid (MAA) which can be produced by transesterification with the appropriate alcohol. There is consequently a great interest in very simple, economic and environmentally friendly processes for preparing this starting material.

More particularly, the present invention relates to an optimized workup of the reactor output from the oxidative esterification of methacrolein, by means of which specific by-products can be isolated and then additionally converted to alkyl methacrylates, especially to MMA.

[No suitable figure]