

Abstract

The present invention relates to a process and a production plant for producing methacrolein from formaldehyde and propionaldehyde in the presence of a homogeneous catalyst mixture which is based at least on an acid and a base. A catalyst mixture commonly used for this synthesis consists of an organic acid and a secondary amine. The presence of the homogeneous catalyst mixture in the reaction mixture is an essential prerequisite for achieving a high yield. The present novel process realizes better water management in the process, thus making it possible not only to reduce the total catalyst amount required but also to reduce undesired catalyst byproducts more efficiently than before.

[No suitable figure]