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(54) Title: PROCESS FOR METHACRYLIC ACID PRODUCTION

(57) Abstract: A process for producing methacrylic acid comprising: a) producing methacrolein from propionaldehyde and formalde-
hyde; b) producing methacrylic acid in an oxidative reaction from the methacrolein produced in step a) and water. Step b) is performed
at a pressure above 1 bar. Step c) is performed in a reactor system in a liquid phase reaction in the presence of a heterogeneous noble
metal-containing catalyst, where the reactor system comprises an oxygen-containing gas. An average concentration of methacrolein in
step b) is less than 40 wt% based on the total weight of water and methacrolein. The reactor system of step b) has an average ratio of
water to methacrolein less than 40:1 based on an average amount of water and methacrolein entering and exiting the system.