

Abstract**Chromium- and nickel-free hydrogenation of hydroformylation mixtures**

The invention is concerned with catalysts for heterogeneous hydrogenation of oxo process aldehydes.

- 5 The problem addressed by the invention is that of developing a catalyst containing neither chromium nor nickel. In addition, it is to enable the economically viable hydrogenation of aldehyde mixtures originating from industrial oxo processes on the industrial scale. For this purpose, the catalyst should not be reliant on costly precious metals such as Ru, Pd or Pt. This problem was solved by omitting the chromium and nickel in the preparation of a conventional Cu/Ni/Cr system, such that a catalyst
- 10 wherein only copper occurs as hydrogenation-active component on the support material thereof, and not chromium or nickel, is obtained. What is surprising here is that a functioning catalyst for the purpose intended still arises at all even though two of three hydrogenation-active metals are omitted. However, this requires as necessary conditions that support material used is silicon dioxide and that the content of Cu and SiO₂ in the active catalyst is set accurately within very tight limits.

- 15 **Figure 4 relating to abstract**