

**CATALYST, PROCESS FOR PRODUCING THE CATALYST AND PROCESS
FOR PREPARING VINYL ACETATE USING THE CATALYST**

Abstract

The present process allows the production of a catalyst for preparing vinyl acetate in the gas phase from ethylene, acetic acid and oxygen or oxygen-containing gases. The catalyst comprises palladium and/or its compounds, gold and/or its compounds and also alkali metal compounds on a particulate, porous support, and is produced by

- a) impregnating the support with soluble palladium and gold compounds,
- b) converting the soluble palladium and gold compounds into insoluble palladium and gold compounds by addition of an alkaline solution to the support,
- c) reducing the insoluble palladium and gold compounds on the support by means of a reducing agent in the liquid or gaseous phase,
- d) impregnating the support with at least one soluble alkali metal compound and
- e) finally drying the support at a maximum of 150°C,

wherein the catalyst is irradiated with microwaves before, during or after one of the process steps a) to e).

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