(a) carrying out a thermal treatment of a metal carbonate mixture by heating to a temperature in the range from 200°C to 300°C for a time of from 1 hour to 6 hours to give a thermally treated metal carbonate mixture having a carbonate content in the range from 2.7 to 14.0% by weight, preferably in the range from 3.0 to 12.5% by weight, particularly preferably in the range from 3.2 to 12.0% by weight, more preferably in the range from 5.0 to 8.0% by weight, and

(b) tableting the thermally treated metal carbonate mixture obtained in step (a),

wherein:

- the metal carbonate mixture is obtained by

(i) combining a solution A and a solution B to form a precipitate 1 at a pH value in the range from 6.0 to 7.5, separating off the precipitate and drying the isolated precipitate by heating to a temperature in the range from 75°C to 130°C; or

(ii) mixing a precipitate 2, a precipitate 3 and optionally one or more precipitates 4, with the precipitates being dried by heating to a temperature in the range from 75°C to 130°C before mixing and/or after mixing, and:

- precipitate 2 is a copper carbonate-containing precipitate obtained by combining a solution C with a solution D at a pH value in the range from 6.0 to 7.5,

- precipitate 3 is a zinc carbonate-containing precipitate obtained by combining a solution E with a solution F at a pH value in the range from 6.0 to 7.5,

- precipitate 4 is a precipitate which contains at least one metal carbonate different from copper carbonate and zinc carbonate and is obtained by

combining at least one solution G with at least one solution H at a pH value in the range from 6.0 to 7.5;

and

- solution A is obtained by dissolving a copper compound, a zinc compound and optionally one or more further metal compounds in a solvent, in particular water, optionally with the aid of an acid or base,

- solutions B, D, F and H are identical or different and are obtained by dissolving a carbonate compound in a solvent, in particular water,

- solution C is obtained by dissolving a copper compound in a solvent, in particular water, optionally with the aid of an acid or base,

- solution E is obtained by dissolving a zinc compound in a solvent, in particular water, optionally with the aid of an acid or base, and

- solution G is obtained by dissolving a metal compound which is not a copper or zinc compound in a solvent, in particular water, optionally with the aid of an acid or base.

The carbonate content, in particular of the metal carbonate mixture, is preferably determined in accordance with DIN ISO 10693.

Furthermore, the disclosure provides Cu-Zn catalysts which can be produced by the processes as defined herein.

In addition, the disclosure provides for the use of Cu-Zn catalysts as defined herein for the

CLAIMS

1. A process for producing a shaped tableted catalyst body, which comprises the following steps:

(a) carrying out a thermal treatment of a metal carbonate mixture by heating to a temperature in the range from 200°C to 300°C for a time of from 1 hour to 6 hours to give a thermally treated metal carbonate mixture having a carbonate content in the range from 2.7 to 14.0% by weight, preferably in the range from 3.0 to 12.5% by weight, particularly preferably in the range from 3.2 to 12.0% by weight, more preferably in the range from 5.0 to 8.0% by weight, and

(b) tableting the thermally treated metal carbonate mixture obtained in step (a),

wherein:

- the metal carbonate mixture is obtained by

(i) combining a solution A and a solution B to form a precipitate 1 at a pH value in the range from 6.0 to 7.5, separating off the precipitate and drying the isolated precipitate by heating to a temperature in the range from 75°C to 130°C, or

(ii) mixing a precipitate 2, a precipitate 3 and optionally one or more precipitates 4, with the precipitates being dried by heating to a temperature in the range from 75°C to 130°C before mixing and/or after mixing;

and:

- precipitate 2 is a copper carbonate-containing precipitate obtained by combining a solution C with a solution D at a pH value in the range from 6.0 to 7.5,

- precipitate 3 is a zinc carbonate-containing precipitate obtained by combining a solution E with a solution F at a pH value in the range from 6.0 to 7.5,

- precipitate 4 is a precipitate which contains at least one metal carbonate different from copper carbonate and zinc carbonate and is obtained by combining at least one solution G with at least one solution H at a pH value in the range from 6.0 to 7.5;

and

- solution A is obtained by dissolving a copper compound, a zinc compound and optionally one or more further metal compounds in a solvent, in particular water, optionally with the aid of an acid or base,

- solutions B, D, F and H are identical or different and are obtained by dissolving a carbonate compound in a solvent, in particular water,

- solution C is obtained by dissolving a copper compound in a solvent, in particular water, optionally with the aid of an acid or base,

- solution E is obtained by dissolving a zinc compound in a solvent, in particular water, optionally with the aid of an acid or base, and

- solution G is obtained by dissolving a metal compound which is not a copper or zinc compound in a solvent, in particular water, optionally with the aid of an acid or base.

2. The process as claimed in claim 1, wherein the thermal treatment in step (a) is effected by heating to a temperature