the environment, easily industrializable, and optionally less expensive compared with processes using rhodium.

## Summary

In one aspect, the present disclosure refers to a process for preparing at least one S,S' dialkyldithiocarbonate, comprising the following step (a):

(a) reacting in the presence of carbon monoxide:

- at least one dialkyl disulfide,
- at least one catalyst comprising at least one metal chosen from nickel, palladium and platinum, and
- optionally in the presence of a solvent or of a mixture of solvents.

In another aspect, the present disclosure refers to a use of at least one S,S'-dialkyldithiocarbonate obtained by means of a process disclosed herein, as a reagent for the preparation of polycarbonates, of compounds comprising at least one urea and/or isocyanate function, or of compounds comprising at least one thioalkyl function.

## Description

The above-mentioned aims are entirely or at least partially achieved with the present invention, a subject of which is in particular a process for preparing at least one S,S'-dialkyldithiocarbonate, comprising the following step (a):

(a) reacting in the presence of carbon monoxide:

- at least one dialkyl disulfide,
- at least one catalyst comprising at least one metal chosen from nickel, palladium and platinum, and
- optionally in the presence of a solvent or a mixture of solvents.

The applicant has in particular noted that the process according to the invention makes it possible to obtain S,S'-dialkyldithiocarbonate by carbonylation of at least one dialkyl disulfide, with a better yield than the prior art processes.

It has also been noted that the process according to the invention uses catalysts which are less toxic, and which may also be less expensive, than those used in the prior art processes.

Other features, aspects, subjects and advantages of the present invention will emerge even more clearly on reading the description and the examples which follow.

Furthermore, any range of values denoted by the expression “between a and b” represents the range of values extending from a up to b (that is to say including the strict limits of a and b).

Throughout the text, the pressures are expressed in megapascals (MPa) absolute.

*Dialkyl disulfide*

Step (a) of the preparation process according to the invention reacts at least one dialkyl disulfide.

According to the invention, the dialkyl disulfide(s) may be symmetrical or asymmetrical. In other words, the two alkyl radicals of a dialkyl disulfide may be identical or different.