temperatures of the order of 200°C to obtain industrially advantageous levels of productivity.

[0012] Those skilled in the art also know that it is possible to prepare methyl mercaptan by acidification of an aqueous solution of sodium methyl mercaptide (CH_3SNa). This method has the major drawback of producing large amounts of salts, such as sodium chloride or sodium sulfate, depending on whether hydrochloric acid or sulfuric acid is used. These saline aqueous solutions are often very difficult to treat and the traces of foul-smelling products which remain mean that this method cannot be readily envisaged on the industrial scale.

[0013] It has now been found that it is possible to prepare methyl mercaptan by enzymatic reduction of dimethyl disulfide (DMDS) during a step prior to the synthesis of the L-methionine and it has also been found, surprisingly, that it is possible to carry out this enzymatic reduction of DMDS during the synthesis of the L-methionine.

[0014] Thus, a subject-matter of the present disclosure is a process for the preparation of L-methionine similar to that proposed in international applications WO2008013432 and/or WO2013029690 and which makes it possible to dispense with, or at the very least to reduce, the handling of methyl mercaptan, by generating said methyl mercaptan in a reaction for the enzymatic catalysis of DMDS, just before the use of said methyl mercaptan in the synthesis of methionine, or by generating said methyl mercaptan in a reaction for the enzymatic catalysis of DMDS in situ in the reactor for the synthesis of L-methionine.

[0015] More particularly, in an aspect of the present disclosure is a process for the preparation of L-methionine, comprising at least the steps of

a) preparation of a mixture comprising:

1) dimethyl disulfide (DMDS),

2) a catalytic amount of amino acid bearing a thiol group or of a thiol-group-containing peptide,

3) a catalytic amount of enzyme catalysing the reaction for the reduction of the disulfide bridge of said amino acid bearing a thiol group or of said thiol-group-containing peptide,

4) hydrogen,

5) a catalytic amount of enzyme catalysing the reaction for the reduction of hydrogen,