CLAIMS

1. A method for preparing acrolein from glycerol or glycerine, characterized in that dehydration of the glycerol or glycerine is achieved in the presence of a catalyst based on zirconium oxide and consisting in at least

a) a mixed oxide of zirconium and of at least one metal M, said metal being selected from niobium, tantalum and vanadium,

b) a zirconium oxide and at least one metal M oxide, said metal being selected from niobium, tantalum and vanadium,

c) a silicon oxide, a mixed oxide of zirconium and of at least one metal M, said metal being selected from tungsten, cerium, manganese, niobium, tantalum, titanium, vanadium and silicon,

~~d) a silicon oxide and a mixed oxide of zirconium and of at least one metal M, said metal being selected from tungsten, cerium, manganese, niobium, tantalum, vanadium and titanium,~~

~~e)~~d) a titanium oxide, a mixed oxide of zirconium and of at least one metal M, said metal being selected from tungsten, cerium, manganese, niobium, tantalum, titanium, vanadium and silicon~~,~~.

~~f) a titanium oxide and a mixed oxide of zirconium and of at least one metal M, said metal being selected from tungsten, cerium, manganese, niobium, tantalum, titanium, vanadium and silicon.~~

2. The method according to claim 1, characterized in that the catalyst consist in at least a) a mixed oxide of zirconium and of at least one metal M and b) a zirconium oxide and at least one metal M oxide.

3. The method according to claim 1 or 2, characterized in that at least one of the oxides of said catalyst a) to ~~f)~~d) is supported.

4. The method according to any of claims 1 to 3, characterized in that the (Zr/sum of the elements Si, Ti and M, different from Zr) molar ratio varies from 0.5 to 200.

5. The method according to claim 4, characterized in that said molar ratio varies from 1 to 100.

6. The method according to any of claims 1 to 5, characterized in that the glycerol is in aqueous solution at a concentration of at least 1% by weight.

7. The method according to claim 6, characterized in that the glycerol concentration of the aqueous solution varies from 10 to 50% by weight.

8. The method according to any of claims 1 to 7, characterized in that the catalyst is regenerated.

9. A method for making 3-(methylthio)propionic aldehyde MMP, 2-hydroxy-4-,methylthiobutyronitrile HMTBN, methionine, 2-hydroxy-4-methylthiobutanoic acid HMTBA, esters of the latter, or 2-oxo-methylthiobutanoic acid KMB, from acrolein, characterized in that the acrolein is obtained with a method according to any of claims 1 to 8.

10. The method according to one of claims 1 to 9, characterized in that the hydration reaction is conducted in a gas phase.

11. The method according to claim 10, characterized in that the dehydration reaction is conducted in a reactor with a fixed bed, a fluidized bed or a circulating fluidized bed.

12. The method according to one of claims 1 to 9, characterized in that the dehydration reaction is conducted in a liquid phase.

13. The use of a catalyst consisting in at least any one of the catalysts a), b), c)~~,~~ and d)~~, e) and f)~~ as defined in any of claims 1 to 5 and optionally 8, in order to convert glycerol or glycerine into acrolein.