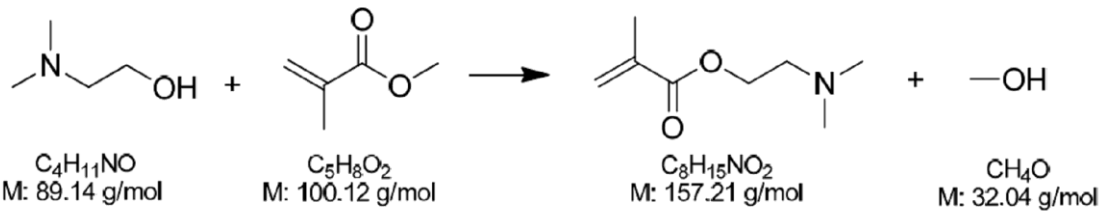
The present disclosure relates to a process for preparing dimethylaminoalkyl (meth)acrylate which is characterized in that a mixture comprising (a) alkyl (meth)acrylate, (b) dimethylaminoalkanol and (c) a catalyst system comprising a solution of a lithium alkoxide in alcohol is reacted.

In one aspect, the present disclosure relates to a process for preparing dimethylaminoalkyl (meth)acrylate, wherein a mixture comprising (a) alkyl (meth)acrylate, (b) dimethylaminoalkanol and (c) a catalyst system comprising a solution of a lithium alkoxide in alcohol is reacted, the method being characterized in that catalyst system contains no alkaline earth metal compounds.

With the process of the disclosure it is possible to realize comparatively high temperatures and hence quicker reaction times.

The reaction scheme below represents by way of example the preparation of dimethylaminoethyl methacrylate from methyl methacrylate and 2-dimethylamino-1-ethanol:



The process of the invention, however, is not confined to the use of 2-dimethylamino-1-ethanol. Examples of other dimethylaminoalkanols which can be used in accordance with the invention are 3-dimethylamino-1-propanol, 4-dimethylamino-1-butanol, 5-dimethylamino-1-pentanol, 6-dimethylamino-1-hexanol, 7-dimethylamino-1-heptanol, and 8-dimethylamino-1-octanol. Preferred in accordance with the invention is the use of 2-dimethylamino-1-ethanol.

Similarly, the process of the invention is not confined to the use of methyl methacrylate. Examples of further methacrylates which can be used in accordance with the invention are ethyl methacrylate, propyl methacrylate, butyl methacrylate, pentyl methacrylate, hexyl methacrylate, heptyl methacrylate, and octyl methacrylate. Acrylates which can be used in accordance with the invention are methyl acrylate, ethyl acrylate, propyl acrylate, butyl acrylate, pentyl acrylate, hexyl acrylate, heptyl acrylate, and octyl acrylate. Preferred in accordance with the invention is the use of methyl methacrylate.

The scheme shown above and also the breadth of the aminoalkyl alcohols which can be used encompasses likewise, as is apparent to the skilled person, the preparation of the corresponding acrylate compounds, in which case methyl methacrylate is a preferred starting compound.

The catalyst system used in accordance with the invention comprises a solution of a lithium alkoxide in alcohol. Examples of lithium alkoxides for use in accordance with the invention are lithium methoxide, lithium ethoxide, lithium *n*-propoxide, lithium *iso*-propoxide, lithium *n*-butoxide, lithium *iso*-butoxide and lithium *tert*-butoxide. Examples of alcohols for use in accordance with the