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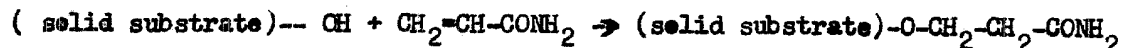
Another modification of the above procedure would involve the following: To base exchange the original quaternary amine with the sodium hectorite, and subsequently to carry out the reaction of the monomers with the pendant hydroxyl groups.

Reactions of hydroxyl containing substrates with acrylamide and ethylene oxide.

Solid substrates containing hydroxyl groups e.g. kaolinite, hectorite, titanium dioxide, lead oxide, asbestos, silicic acid tetramer etc.) could also be reacted with acrylamide or ethylene oxide. Thus the plasticity and water dispersion characteristics of the solid particles might be improved considerably.

The types of reactions involved here are illustrated schematically:

a) With acrylamide:



b) With ethylene oxide:



In the above examples the substrate could also be a polymer such as polyvinyl alcohol



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