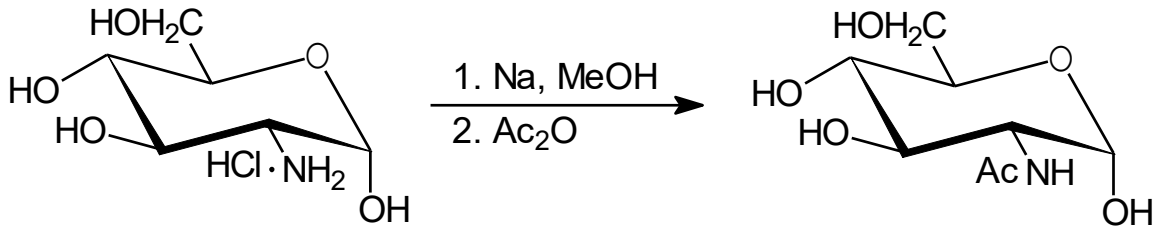
1. Synthesis of *N*-acyl-D-glucosamines



D-Glucosamine hydrochloride (11 g) was placed in 50 mL anhydrous methanol in which an equivalent amount of sodium (1,15 g) had been dissolved. Upon gentle swirling (5 min.), sodium chloride separated and was removed by filtration and washed with a small volume of cold methanol. An amount of acid anhydride from 1.2 to 1.5 equivalents (6 mL) was added gradually under magnetic stirring to the supersaturated and solution (claudy) of D-glucosamine (in an ice-water bath: water + NaCl). Stirring was continued for some time, and then the reaction mixture was allowed to stand at room temperature (24h). Reaction was monitored by a thin-layer chromatography (TLC): chloroform:methanol (1:3). The crude *N*-acyl-D-glucosamines (white precipitate) were removed by filtration, washed with cold methanol and then repeatedly with ether to remove fatty acids, and dried at room temperature (in a desiccator over P_2O_5).

The crude *N*-acyl-D-glucosamine was obtained in nearly quantitative yield (7,7 g), after overnight standing, with the m.p. ranging from 200 to 204 °C