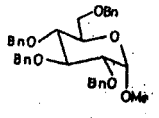
E2-40 Preparation and reactions of 2,3,4,6-tetra-O-benzyl-D-mannose S-ethyl O-methyl monothioacetal

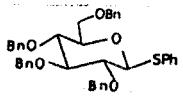
E M Kithsiri Wijeratne[1], H Hashimoto[2]
([1]*Div of Natural Products Chemistry, Medical Research Institute, Colombo 8,*[2]*Laboratory of Chemistry for Natural Products, Tokyo Institute of Technology, Nagatsuta, Yokohama-shi, Japan*)

Reaction of perbenzylated derivative of methyl α-D-gluucopyranoside (**1**) with dimethylboron bromide (Me_2BBr) and thiophenol (PhSH) at room temperature gave low yield of phenylthio-ß-D-glucopyranoside (**2**).Reaction of perbenzylated derivative of methyl α-D-mannopyranoside (**3**)with Me_2BBr and ethanethiol at -65°C gave acyclic O-S-acetals (**4** and **5**) in good yields. Reaction of 2,3,4,6-tetra-O-benzyl-5-O-trimethylsilyl-D-mannose S-ethyl O-methyl monothioactal (**6**) with Me_2BBr and PhSH at -78°C gave S-ethyl S-phenyl dithioacetal **7** and reaction of **6** with Me_2BBr and 3 kinds of lithium methylcuprates (dimethyl lithium cuprate, mixed methyl cuprate and salt-free methyl lithium cuprate) at -78°C gave elimination products **8**, **9** and cyclized product **10**.

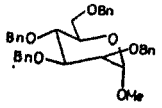
A Fellowship from Unesco is acknowledged.



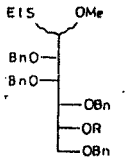
1



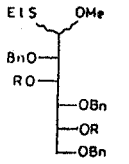
2



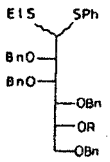
3



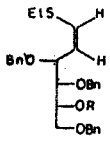
4 R = H
6 R = TMS



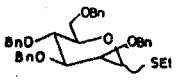
5 R = H



7



8 R = H
9 R = TMS



10