in 0.05 ml of water were mixed with 0.05 ml of the enzyme solution. The products in the enzymolysate were separated and identified by the methods of the previous experiment. The radioactivities of the compounds were measured directly on the paper chromatogram and are recorded in Table I.

TABLE I

RADIOACTIVITIES OF THE COMPOUNDS IN AN ENZYMOLYSATE OF ^{14}C-GLUCOSE AND DEXTROTRIOSE

Compound	*Time*			
	0 h *cpm*	*12 h* *cpm*	*48 h* *cpm*	*96 h* *cpm*
Glucose	2610	2342	2085	1820
Isomaltose (dextrobiose)	13	135	406	648
Dextrotriose	8	29	64	102

The results show that radioactive isomaltose was produced in the digest and, therefore, verify the reversibility of the reaction. The radioactive isomaltose was, in turn, disproportionated to yield radioactive dextrotriose.

The transglucosidase of *Aspergillus oryzae* effects a reversible transglucosidation of isomaltose to glucose and dextrotriose. Quantitative analysis of the reaction mixture after attainment of equilibrium should provide values from which the free energy of formation of an α-1,6-glucosidic bond may be calculated.

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THE NATURE OF DIRECT AND INDIRECT BILIRUBIN

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It has been found that during electrophoretic experiments on filter paper the direct reacting pigment from bile migrates together with conjugated desoxycholate, as indicated by means of colour reactions for desoxycholic acid; this combination contributes to high polar character of this pigment. No cholate migrates together with it. On the contrary, the indirect form of bilirubin did not move at all during electrophoretic experiments on filter paper, thus behaving like free bilirubin. These experiments are in accordance with the findings of YAMAOKA AND KOSAKA[1], that the propionic acid residues in the direct bilirubin are bound, this suggesting the possibility of a compound of bilirubin with another substance, and with those of POLONOVSKI AND BOURRILLON[2] who suggest the complex of bilirubin with bile salts. Full details will be published elsewhere.

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