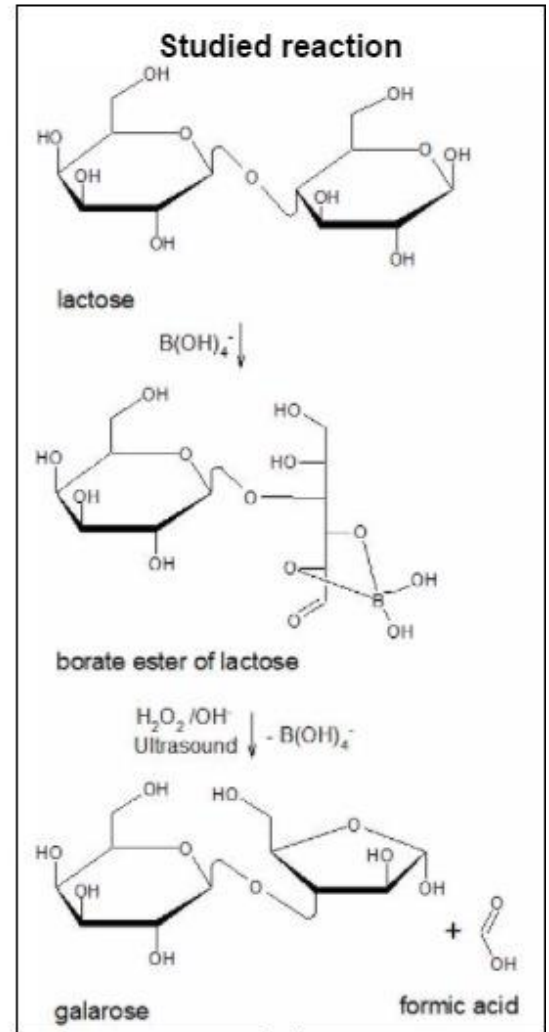


Protection of C5-sugars in oxidation process development

Theory			
	protective groups	ultrasound	carbohydrates (sugars)
discussed theory	mechanics, boron acids specifically	mechanics, reactors	specific sugars, applications
function for the studied reaction	essential for the reaction	significant improvement for the reaction	basis of the reaction
status in industry	used in fine chemical production	required development for industrial applications	mainly used in food industry

Results and discussion		
main outcomes	The protective group offers sufficient protection even under sonication.	95 % selectivity for galactose was obtained under sonication .
further research	sufficient processing time	continuous reactor
	conventional reaction parameter (T, pH..) optimisation	ultrasound parameter (power, frequency) optimisation
	application on other sugars	regeneration of boric acid



Possible application process

