

Aim:- Spectrophotometric analysis of catechu+slaked lime solution before and after autoclave

Solution used: 10:1 catechu:slaked lime solution

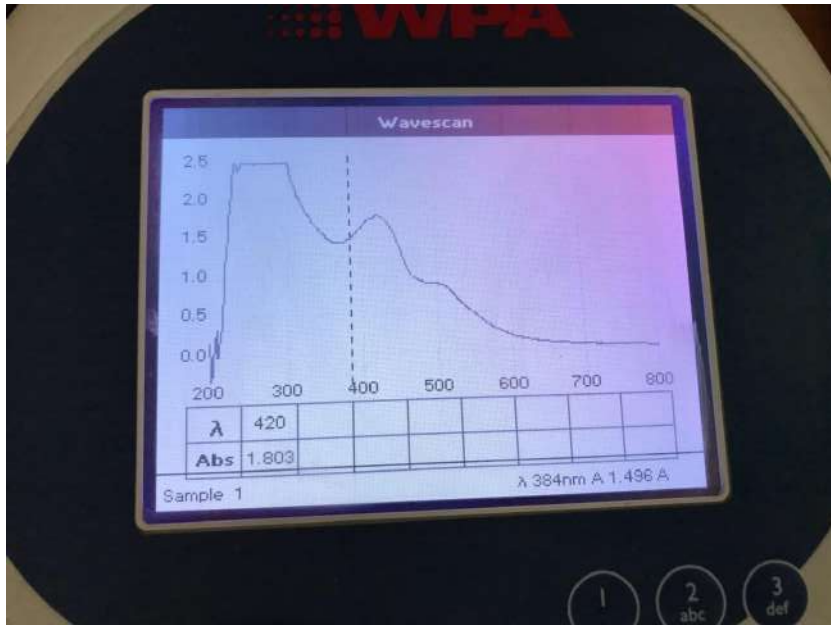
Diluent used: Distilled water

BEFORE AUTOCLAVE:

Wavelength (nm)	Absorbance (A units)	
	Concentration	
	0.5%	1%
450	0.684	1.402
505	0.458	0.906
530	0.323	0.698
580	0.163	0.312
630	0.049	0.154

$\lambda_{\text{max}} = 420 \text{ nm}$

$A(\text{max}) = 1.803$

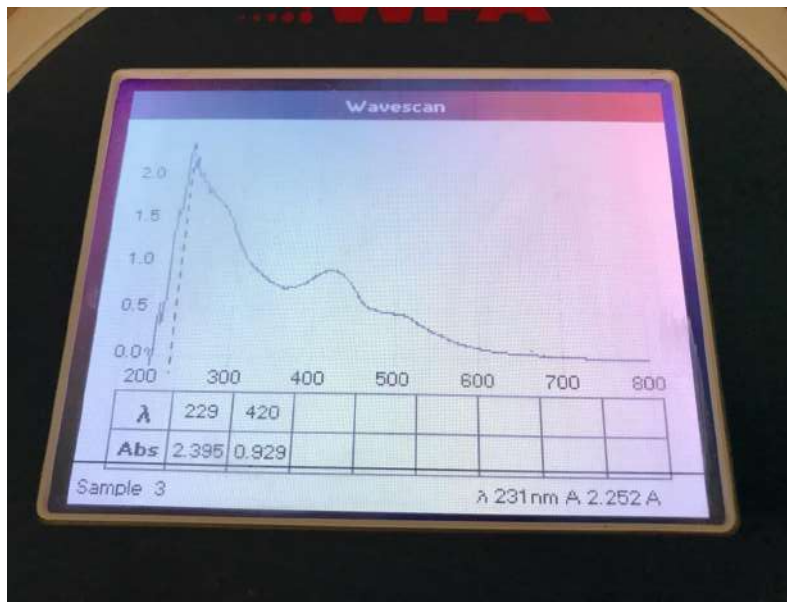


AFTER AUTOCLAVE:

Wavelength (nm)	Absorbance (A units)
	Concentration
	1%
450	0.833
505	0.590
530	0.477
580	0.262
630	0.105

$\lambda_{max} = 416 \text{ nm}$

$A(\text{max}) = 1.060$



We can observe from the values that the absorbance is decreasing i.e.; intensity of red colour decreases with autoclaving.

But it is also observed that the peaks of the graph of both solutions before and after autoclave is same and the nature of graph is also similar in both cases, i.e.; no difference in the molecules but only the absorbance.