

NAFIZ FAHAD

1.8 Calculations:

(A) Vernier Constant (VC) = $1/60$

(B) Wavelength of light used = 5893×10^{-8} cm

(C) Angle of prism, $A = 60^\circ$

(C) Table for the angle of minimum deviation:

Vernier number	No. of observations	Reading for the minimum deviation position				Reading for the direct position				Angle of minimum deviation (δ_m)	Mean δ_m	Refractive index $\mu = \frac{\sin \frac{\delta_m + A}{2}}{\sin \frac{A}{2}}$
		Main scale Reading (MSR)	Vernier scale division VSD	Total reading $M = MSR + (VSD \times VC)$	Mean M	Main scale Reading (MSR)	Vernier scale division VSD	Total reading $N = MSR + (VSD \times VC)$	Mean N			
1	1	350	6	350.1	258.47	391	8	391.13	273.13	14.66	14.17	1.213
	2	71	15	71.25		30	10	30.17				
	3	354	4	354.07		398	5	398.08				
2	1	169	2	169.03	197.47	211	10	211.17	211.14	13.67	14.17	1.213
	2	249	10	249.17		209	13	209.22				
	3	174	12	174.2		213	2	213.03				