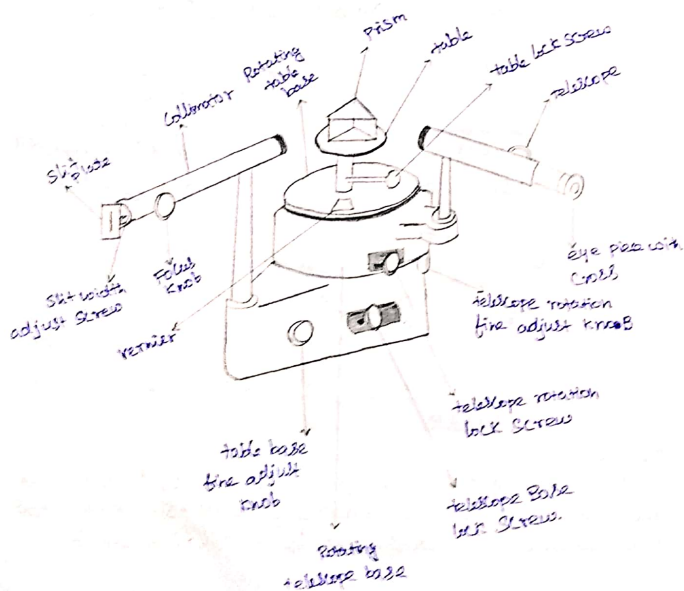


Schematic diagram of Spectrometer.



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INTEGRATED OPTICS

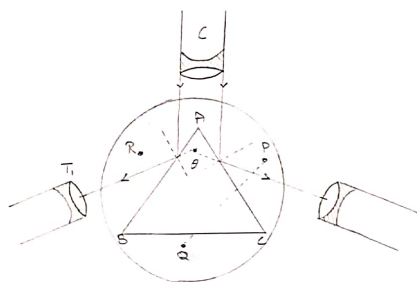
Apparatus available:

Spectrometer
spirit level
magnifying glass
glass prism
Sodium Vapour lamp

SLO:

To determine the apex angle of the given prism using a spectrometer.

Teacher's Signature :



Tabulation
Least Count =

Reading of Reflected Ray	Vernier A			Vernier B		
	MSR	VSR	Total	MSR	VSR	Total
Reflection from side (a) AB	111°	26'	111°26'	291°	25'	291°25'
Reflection from side (b) AC	280°	49'	280°49'	50°	44'	49°44'
Difference between a & b			119°23'			119°19'

Mean $\theta =$
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Yogeshwaran.

119°23'
119°19'
119°21'

$$\begin{aligned} \text{mean } \theta &= \frac{119^\circ 23' + 119^\circ 19'}{2} \\ &= \frac{238^\circ 42'}{2} \\ &= 119^\circ 21' \end{aligned}$$

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Result:

The apex angle of the given equilateral prism = $59^\circ 40'$

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26 03 19

8.7/18

Teacher's Signature :