Department of Science and Humanities
Applied Chemistry Laboratory

Subject: Engineering Chemistry

Observation

Weight of empty crucible= 17.5465 gm (W1)

Weight of crucible + Sample (Before heating) = 18.3323 gm (W2)

Weight of sample before drying = 18.3323 - 17.5465 gm ($W_2 - W_1$)

= 0.7858 gm (W3)

Weight of crucible + sample (after heating) = 18.1050 gm (W4)

Weight of the sample (after heating) = 18.1050 - 17.5465 gm (W4- W1)

= 0.5585 gm (W5)

Loss in weight of sample = 0.5585 - 0.7858 gm (W5- W3)

= -0.2273 gm (W6)

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Weight of sample taken = 0.7858 gm (W3)

Loss in weight = 0.2273 gm (W6)

$$\% \text{ Volatile matter} = \frac{\text{Loss in weight}}{\text{Wt of sample taken}} \times 100$$

$$= \frac{W6}{W3} \times 100 - \%\text{Moisture}$$

$$= \frac{28.925}{} \% - 18.4497$$

$$= 10.47\%$$

Result : Percentage of volatile matter in given charcoal powder

= ~~28.925 %~~ 10.47%.