CAPILARY RISE (h)

is called **contact angle**.

is the angle between meniscus and fluid.

QUESTIONS

1. Calculate the Capillary rise in a glass tube of 2.5mm diameter when immersed vertically in

a) Water

b. Mercury

Take surface tension for water

for mercury

2. The secific gravity for mercury is given as 13.6 and angle of contact for mercury is 130

Solution

From knowledge, we should know the followig…

gravity,

Specific gravity of mercury is 13.6

3. Calculate the capillary effect in millimeters in a glass tube of 4mm diameter when immersed in 1) Water 2) Mercury. The temperature of the liquid is 20C and the surface tension of water and mercure are 20C in contact with air are 0.07355{N/m} and 0.51{N/m} respectively. The angle of contact for water is 0 and mercury is 130. Take density of water at 20C to be be

Solution.

For water,

For mercury,