Law of Gliwimidity

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Abstract-I have made small research experiment on topic surface tension of physics subject. surface area of water increases then object like glass displaces on smooth surface of the stone(kaddpa stone-word used for stone used in vidharbha region of Maharashtra state of india).it is not any copy from other experiment.

Inroduction-Gliwimidity indicate girish liquid molecule gravity showing liquid force because invert kept object like glass attracted by molecule of water having center of gravity.i take steel glass because weight of an object equal to gravitational force of attraction is small

Law of inverse Gliwimidity-If the direction of surface area of water increases then it is directly proportional to product of internal excess pressure and displacement of invert kept object like steel glass on smooth surface of stone by taking short time interval.

According to this law,

$$S_a \propto p_i \times d_x$$

$$S_a = G_l \times p_i \times d_x$$

G_l=gliwimidity constant

P_i=internal excess pressure of steel glass

d_x=displacement of glass

but d_x=position/time,p_i=force/area

$S_a=G_l\times f/a\times p/t$

But here f=mass×accleration=ma=kg

$S_a=G_l\times kg/cm^2\times cm/s$

$G_l= S_a\times cm^2\times s/kg\times cm$

Surface area of water=$s_a=cm^2$

$G_l=cm^2cm^2s/kg\times cm$

$G_l=cm^3\times s/kg$

$G_l=[M^0L^3T^0][M^0L^0T^1]/[M^1L^0T^0]$

$G_l=[M^{-1}L^3T^1]$

EXPERIMENTAL PROCEDURE

1.take 10 ml or more than 10 ml water in steel glass.

2.keep invert position of steel glass on smooth surface(kaddpa stone) of stone.

3.gradually water surfaces increases on smooth surface on stone i.e.,water take direction.

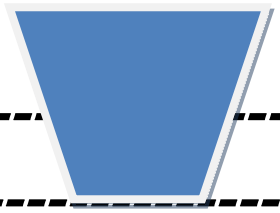
4.invert kept steel glass float on water surfaces because weight of an object is equal to gravitational force of attraction is very small.

5.glass float on water shows excess internal pressure of the glass and displacement of steel glass

6.as surface area increases, glass also move in direction of surface area of water.

7.following diagram show gliwimidity

Take 10 ml water in steel glass

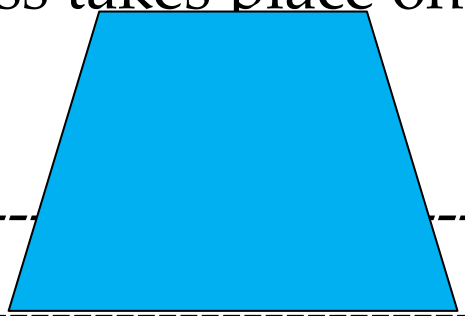


Smooth surface

2.keep steel glass in invert position on smooth surface.

Position 1

Displacement of the glass takes place on smooth surface



Position2

We can calculate position of steel glass by giving time

Change of position=final position-initial position

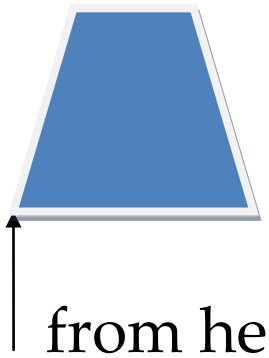
$\Delta_p = p_2 - p_1 / t_2 - t_1$

$\Delta_p = p_2 - p_1 / t$

Sr no	Position p_1	Position p_2	$\Delta_p = p_2 - p_1 / t$	
1				
2				
3				

We can set time as per our timing setting and calculation can be done above formulae

For position of the glass set the scale at 0cm from its bottom edge of the glass



from here set scale

and measure position of glass as increases surface of water.

I take $s_a=4\ \pi r^2$

Assume r=1cm,t=1sec

Take 10ml=0.1kg

$G_l=4\pi r^2\times cm^3\times s/kg$

$=4\times3.142\times1\times1/0.1\times10^3$

$=125.68\times10^{-3}$

If the surface area of water doesn't increases then steel glass remain constant in its original position