Problem 5) Two identical charged spheres are suspended by strings of equal lengths. The strings make an angle of 30° with each other. When suspended in a liquid of density 0.8 g cm–3 , the angle remains the same. If density of the material of the sphere is 1.6 g cm–3 , the dielectric constant of the liquid is

[AIEEE 2010, 8/144]

(1) 4
(2) 3
(3) 2
(4) 1


Ans) 3