

from McQuarrie, D.A. and Simon, J. D.
Physical Chemistry, A Molecular Approach,
 University Science Books, Sausalito, (1997)
 p. 148.

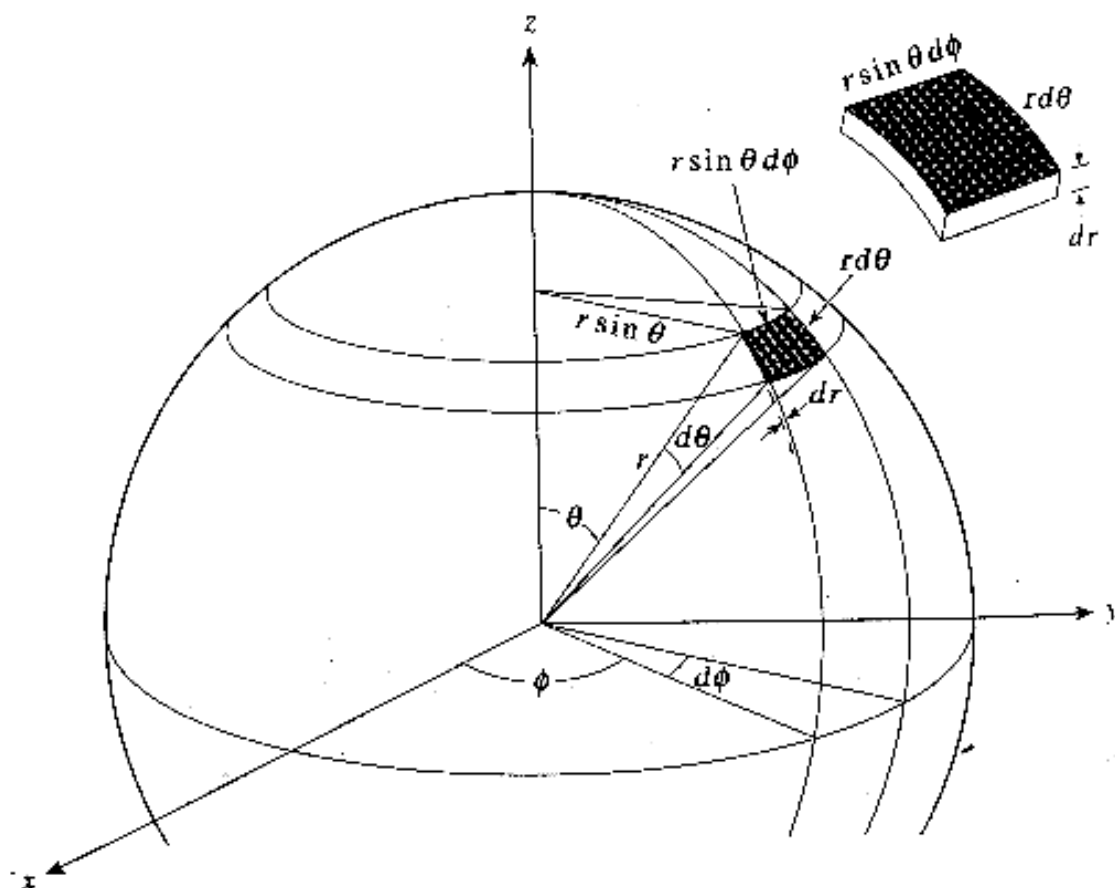


FIGURE D.2

A geometrical construction of the differential volume element in spherical coordinates.

$$x = r \sin \theta \cos \phi$$

$$y = r \sin \theta \sin \phi$$

$$z = r \cos \theta$$

$$r = \sqrt{x^2 + y^2 + z^2}$$

$$\theta = \cos^{-1} \left(\frac{z}{r} \right)$$

$$\phi = \tan^{-1} \left(\frac{y}{x} \right)$$