Addressing the Problem in Applying Recently Using Relative Humidity Equation as a Ratio of Saturation Pressures, For Closed Systems and Deriving the Correction Ratio for Closed Systems

P.S.N. De Silva[1]

This article has brought to consideration a problem about the applicable situations of the recently using relative humidity equation which is in terms of saturation pressure of a system in a certain temperature and saturation pressure at dew point temperature. This equation is generally used for both open systems (space) and closed systems (fixed volumes). Though, for open systems it's hundred present theoretically correct under certain assumption, for closed systems it's not correct. Here this problem is addressed and a correction ratio has been derived to overcome the error which occurs in closed systems in the determination of relative humidity.

Keywords: Relative Humidity, Open System, Closed System, Partial Vapor Pressure, Saturation Biographical

[1]Department of Physics, Faculty of Science University of Kelaniya, Kelaniya, Sri Lanka.sanrosh@live.co.uk