

Would you please check definition for the "beta" in formula (1). In Si, Bunsen solvability coefficient should be dimensionless. The one in (1) should have some pressure units in denominator but on page 5 line 2 it is in $10^{**}(-9)$ mol/L.

> The editor is correct, the original Bunsen solubility coefficient is indeed dimensionless, though sometimes the derived solubility concentrations with units are also called β in the literature. The constants for calculating the solubility given in Wiesenborg & Guinasso (1979) and Weiss & Price (1980) are for 1 atm, so the units can also be expressed as mol L⁻¹ atm⁻¹, though Wiesenborg & Guinasso do not explicitly do so. However, to avoid confusion we've now changed the symbol from β to F as per Weiss & Price (1980), who also give the unit explicitly in mol L⁻¹ atm⁻¹.

Also please remove $pV=nRT$ formula on the line 16 page 4 (as you need to define all the ingredients which would be rather redundant).

> The formula has been removed.