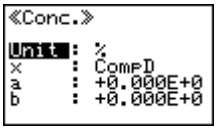
Concentration measurement by setting desired concentration conversion formula



Set “Comp. Temp” and “α” , measurement of density with temperature compensated or measurement of specific gravity with temperature compensated. Then, concentration can be calculated using the calculated “Comp D” or “SG”.

User defined concentration conversion formula (Linear expression: y = a + bx)

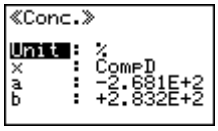
Conc.(%)	Den.(g/cm^3) at 20°C	Conc.(%)	Den.(g/cm^3) at 20°C
10.0	0.9820	10.6	0.9842
10.1	0.9824	10.7	0.9845
10.2	0.9827	10.8	0.9849
10.3	0.9831	10.9	0.9852
10.4	0.9835	11.0	0.9855
10.5	0.9838		

For example from the above data, a conversion formula can be obtained as follows.

Suppose take y for concentration and x for density, you can obtain y=283.2x–268.1 by the approximate formula from regression line using commercially available spread sheet software.

Therefore, you input –2.681E+2 for coefficient ‘a’ and 2.832E+2 for coefficient ‘b’.

Example of input:



Example of measurement:

(when density is 0.9820 g/cm^3)