

fractional change of a quantity

A term which may be expressed infinitesimally at time t by the differential $\frac{dQ(t)}{Q(t)}$. For a finite time interval the quotient is

$$\frac{\Delta Q(t_1; t_2)}{Q(t_1)} = \frac{[Q(t_2) - Q(t_1)]}{Q(t_1)}$$

The quantities $Q(t_1)$ and $Q(t_2)$ are of the same kind and have the same type of component. Fractional change has dimension one. Examples are: mass fractional change, $\frac{dm(t)}{m(t)}$; amount of substance fractional change, $\frac{dn(t)}{n(t)}$.

Source:

PAC, 1992, 64, 1569 (*Quantities and units for metabolic processes as a function of time (IUPAC Recommendations 1992)*) on page 1571