

fractional change of a quantity

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

$$\Delta Q(t_1; t_2)/Q(t_1) = [Q(t_2) - Q(t_1)]/Q(t_1)$$

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, $dm(t)/m(t)$; amount of substance fractional change, $dn(t)/n(t)$.

1992, 64, 1571