

### **Gibbs film elasticity**

Pertains to a film element of a *soap film* changing in area at constant mass and is the differential change of its *surface tension*  $\sigma$  with relative change in area  $A$ ,

$$E = A(\partial\sigma/\partial A)_{T,p,n_i}$$

where  $T$  is the thermodynamic temperature,  $p$  is the pressure, and  $n_i$  is the amount of substance of the species  $i$ .

1972, 31, 615