

Definition	Transformation
$\left(\frac{\partial^2 T}{\partial p^2}\right)_e$	$= -\left(\frac{\partial^2 p}{\partial T^2}\right)_e \left(\frac{\partial p}{\partial T}\right)_e^{-3}$
$\left(\frac{\partial^2 T}{\partial \varrho^2}\right)_p$	$= -\left[\left(\frac{\partial^2 p}{\partial \varrho^2}\right)_T \left(\frac{\partial p}{\partial T}\right)_e - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial^2 p}{\partial T \partial \varrho}\right)\right] \left(\frac{\partial p}{\partial T}\right)_e^{-2}$ $+ \left[\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) \left(\frac{\partial p}{\partial T}\right)_e - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial^2 p}{\partial T^2}\right)_e\right] \left(\frac{\partial p}{\partial T}\right)_e^{-3} \left(\frac{\partial p}{\partial \varrho}\right)_T$
$\left(\frac{\partial^2 T}{\partial p \partial \varrho}\right)$	$= -\left[\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) \left(\frac{\partial p}{\partial T}\right)_e - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial^2 p}{\partial T^2}\right)_e\right] \left(\frac{\partial p}{\partial T}\right)_e^{-3}$
$\left(\frac{\partial^2 \varrho}{\partial p^2}\right)_T$	$= -\left(\frac{\partial^2 p}{\partial \varrho^2}\right)_T \left(\frac{\partial p}{\partial \varrho}\right)_T^{-3}$
$\left(\frac{\partial^2 \varrho}{\partial T^2}\right)_p$	$= -\left[\left(\frac{\partial^2 p}{\partial T^2}\right)_e \left(\frac{\partial p}{\partial \varrho}\right)_T - \left(\frac{\partial p}{\partial T}\right)_e \left(\frac{\partial^2 p}{\partial T \partial \varrho}\right)\right] \left(\frac{\partial p}{\partial \varrho}\right)_T^{-2}$ $+ \left[\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) \left(\frac{\partial p}{\partial \varrho}\right)_T - \left(\frac{\partial p}{\partial T}\right)_e \left(\frac{\partial^2 p}{\partial \varrho^2}\right)_T\right] \left(\frac{\partial p}{\partial \varrho}\right)_T^{-3} \left(\frac{\partial p}{\partial T}\right)_e$
$\left(\frac{\partial^2 \varrho}{\partial T \partial p}\right)$	$= -\left[\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) \left(\frac{\partial p}{\partial \varrho}\right)_T - \left(\frac{\partial p}{\partial T}\right)_e \left(\frac{\partial^2 p}{\partial \varrho^2}\right)_T\right] \left(\frac{\partial p}{\partial \varrho}\right)_T^{-3}$
$\left(\frac{\partial \mu}{\partial T}\right)_e$	$= \left\{ -\left(\frac{\partial^2 p}{\partial T^2}\right)_e - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial h}{\partial T}\right)_e \left(\frac{\partial^2 h}{\partial T \partial \varrho}\right) \left(\frac{\partial h}{\partial \varrho}\right)_T^{-2} \right.$ $\left. + \left[\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) \left(\frac{\partial h}{\partial T}\right)_e + \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial^2 h}{\partial T^2}\right)_e\right] \left(\frac{\partial h}{\partial \varrho}\right)_T^{-1} \right\} \mu^2$
$\left(\frac{\partial \mu}{\partial \varrho}\right)_T$	$= \left\{ -\left(\frac{\partial^2 p}{\partial T \partial \varrho}\right) - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial h}{\partial T}\right)_e \left(\frac{\partial^2 h}{\partial \varrho^2}\right)_T \left(\frac{\partial h}{\partial \varrho}\right)_T^{-2} \right.$ $\left. + \left[\left(\frac{\partial^2 p}{\partial \varrho^2}\right)_T \left(\frac{\partial h}{\partial T}\right)_e + \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial^2 h}{\partial T \partial \varrho}\right)\right] \left(\frac{\partial h}{\partial \varrho}\right)_T^{-1} \right\} \mu^2$
$\left(\frac{\partial^2 T}{\partial p^2}\right)_h$	$= \left(\frac{\partial \mu}{\partial p}\right)_h = \frac{\left(\frac{\partial \mu}{\partial T}\right)_e \left(\frac{\partial h}{\partial \varrho}\right)_T - \left(\frac{\partial \mu}{\partial \varrho}\right)_T \left(\frac{\partial h}{\partial T}\right)_e}{\left(\frac{\partial p}{\partial T}\right)_e \left(\frac{\partial h}{\partial \varrho}\right)_T - \left(\frac{\partial p}{\partial \varrho}\right)_T \left(\frac{\partial h}{\partial T}\right)_e}$