Diabatic Coupling Functions Defined in VCH-FIT

Each one-mode coupling function $W_{ij}(Q_{\alpha})$ is defined with respect to a set of parameters $\{k_n\}$, and is selected using the function labels given below.

Function label	Definition
tanh	$W_{ij}(Q_{\alpha}) = \Delta \tanh(\rho Q_{\alpha})$ with
	$\Delta = k_1$
	$ ho = k_2$
poly_to_tanh	$W_{ij}(Q_{\alpha}) = \Delta \tanh(\rho Q_{\alpha}) + (\zeta Q_{\alpha} + \eta Q_{\alpha}^2) \exp(-\upsilon Q_{\alpha})$ with
	$\Delta = k_1$
	$ ho = k_2$
	$\zeta = k_3$
	$\eta = k_4$
	$\upsilon = k_5$
$\tanh 2$	$W_{ij}(Q_{\alpha}) = \frac{\Delta}{2} \left[1 - \tanh\left(-\frac{Q_{\alpha}-\zeta}{\eta}\right) \right]$ with
	$\Delta = k_1$
	$\zeta = k_2$
	$\eta = k_3$
cubic	$W_{ij}(Q_{\alpha}) = \lambda Q_{\alpha} + \frac{1}{3!} \eta Q_{\alpha}^3$ with
	$\lambda = k_1$
	$\eta = k_2$