

S2 Table

	Value (kcal/mol)
$\Delta G_{d \rightarrow tw}^{-Mg}$	3.8 ± 0.2
$\Delta G_{d \rightarrow tw}^{+Mg}$	4.2 ± 0.1
$\Delta \Delta G_{d \rightarrow tw}^{(+Mg \rightarrow -Mg)}$	-0.4 ± 0.2
$\Delta \Delta G_{d \rightarrow tw}^{\ddagger(+Mg \rightarrow -Mg)}$	-0.4 ± 0.1
$\Delta \Delta G_{tw \rightarrow d}^{\ddagger(+Mg \rightarrow -Mg)}$	-0.07 ± 0.2