

Define $\left[\begin{aligned} \mathbf{kR}_{i,j} &= \mathbf{R}_{i,j} // (\mathbf{b2t}_i \mathbf{b2t}_j) /. \mathbf{t}_{i|j} \rightarrow \mathbf{t}, \\ \overline{\mathbf{kR}}_{i,j} &= \overline{\mathbf{R}}_{i,j} // (\mathbf{b2t}_i \mathbf{b2t}_j) /. \{ \mathbf{t}_{i|j} \rightarrow \mathbf{t}, \mathbf{T}_{i|j} \rightarrow \mathbf{T} \}, \\ \mathbf{km}_{i,j \rightarrow k} &= (\mathbf{t2b}_i \mathbf{t2b}_j) // \mathbf{dm}_{i,j \rightarrow k} // \\ &\quad \mathbf{b2t}_k /. \{ \mathbf{t}_k \rightarrow \mathbf{t}, \mathbf{T}_k \rightarrow \mathbf{T}, \tau_{i|j} \rightarrow \emptyset \}, \\ \mathbf{kC}_i &= \mathbf{C}_i // \mathbf{b2t}_i /. \mathbf{T}_i \rightarrow \mathbf{T}, \overline{\mathbf{kC}}_i = \overline{\mathbf{C}}_i // \mathbf{b2t}_i /. \mathbf{T}_i \rightarrow \mathbf{T}, \\ \mathbf{kKink}_i &= \mathbf{Kink}_i // \mathbf{b2t}_i /. \{ \mathbf{t}_i \rightarrow \mathbf{t}, \mathbf{T}_i \rightarrow \mathbf{T} \}, \\ \overline{\mathbf{kKink}}_i &= \overline{\mathbf{Kink}}_i // \mathbf{b2t}_i /. \{ \mathbf{t}_i \rightarrow \mathbf{t}, \mathbf{T}_i \rightarrow \mathbf{T} \} \end{aligned} \right]$