

$$\begin{array}{ccc}
& x_{S,S';il} \circ (b_{S,ijl} \times b_{S';ijl}) \\
& \circ (1 \times b_{S;jkl} \times 1 \times b_{S';jkl}) \\
1 * (\alpha_{S;ijkl} \times \alpha_{S';ijkl}) & \nearrow & \psi_{S,S';ikl} * 1 \\
& & \searrow \\
x_{S,S';il} \circ (b_{S,ikl} \times b_{S';ikl}) & & b_{S \cup S';ijl} \circ (x_{S \cup S';ij} \times x_{S,S';jl}) \\
\circ (b_{S;ijk} \times 1 \times b_{S';ijk} \times 1) & & \circ (1 \times 1 \times b_{S,ijl} \times b_{S',ijl}) \circ \tau_0 \\
& \downarrow & \downarrow \\
\psi_{S,S';ikl} * 1 & & 1 * (1 \times \psi_{S,S';jkl}) \\
& \downarrow & \downarrow \\
b_{S \cup S';ikl} \circ (x_{S,S';ik} \times x_{S,S';kl}) & & b_{S \cup S';ijl} \circ (1 \times b_{S \cup S';jkl}) \\
\circ (b_{S;ijk} \times b_{S';ijk} \times 1 \times 1) \circ \tau_2 & & \circ (x_{S,S';ij} \times x_{S,S';jk} \times x_{S,S';kl}) \circ \tau_1 \\
& \searrow & \nearrow \\
1 * (\psi_{S,S';ijk} \times 1) & & \alpha_{S \cup S';ijkl} * 1 \\
& \searrow & \nearrow \\
& b_{S \cup S';ikl} \circ (b_{S \cup S';ijk} \times 1) \\
& \circ (x_{S,S';ij} \times x_{S,S';jk} \times x_{S,S';kl}) \circ \tau_3
\end{array}$$