In this Synlett Cluster, we are delighted to celebrate new developments by highlighting some new ‘metathesis reactions beyond olefins’ reported by leading authors in this field of research. The diversity of bonds (e.g., C–S, C–O, C=O, M–X) involved in this cluster as well as the diversity of applications considered (organic synthesis, organometallic synthesis, polymer chemistry and supramolecular chemistry) clearly highlight the untapped potential of this research area.

**Trithioorthoester exchange**

\[
R-SR^1 \cdot R^2SH \xrightleftharpoons{\text{acid}} \stackrel{\text{tripodal geometry}}{\longleftarrow} R-SR^1 \cdot R-SR^2 \cdot R^2SH
\]

**Trithioorthoester metathesis**

\[
R-SR^1 \cdot R-SR^2 \xrightarrow{\text{acid}} R-SR^1 \cdot R^2SH \quad \text{up to 8 compounds}
\]