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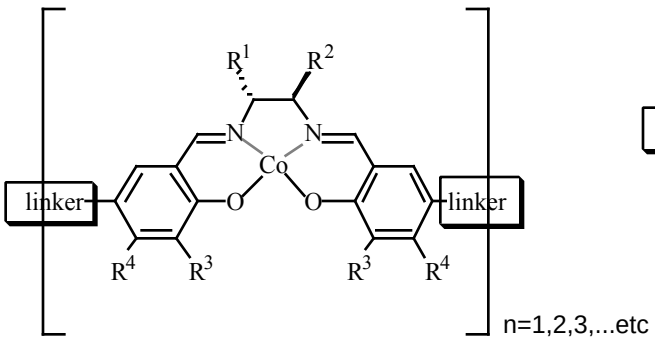
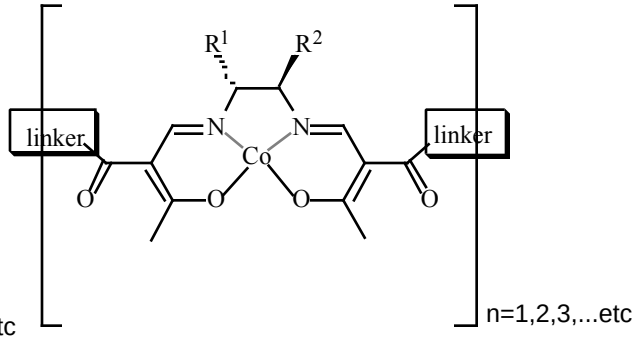
Biological Chemistry and Molecular Recognition.

New highly active oligomeric cobalt salen and cobalt β-ketoiminato catalysts.

Highly active oligomeric cobalt salen and cobalt β-ketoiminato catalysts are being developed for the catalytic ring opening of 1,2-dioxines. This process allows for the construction of a variety of optically-enriched compounds including those depicted above. A provisional patent has now been secured on this new technology and we now with to optimise the process for large-scale application. Essentially, this project will involve the synthesis of linked cobalt complexes such as those depicted below, which are optically pure. In addition, the ability of the catalysts in promoting catalytic asymmetric reactions will also need to be evaluated.

Chiral Cobalt Salen Based Catalysts.



Beta-Ketoiminato Cobalt Based Catalysts.