AmbreXolide™ Synthesis via Olefin Metathesis

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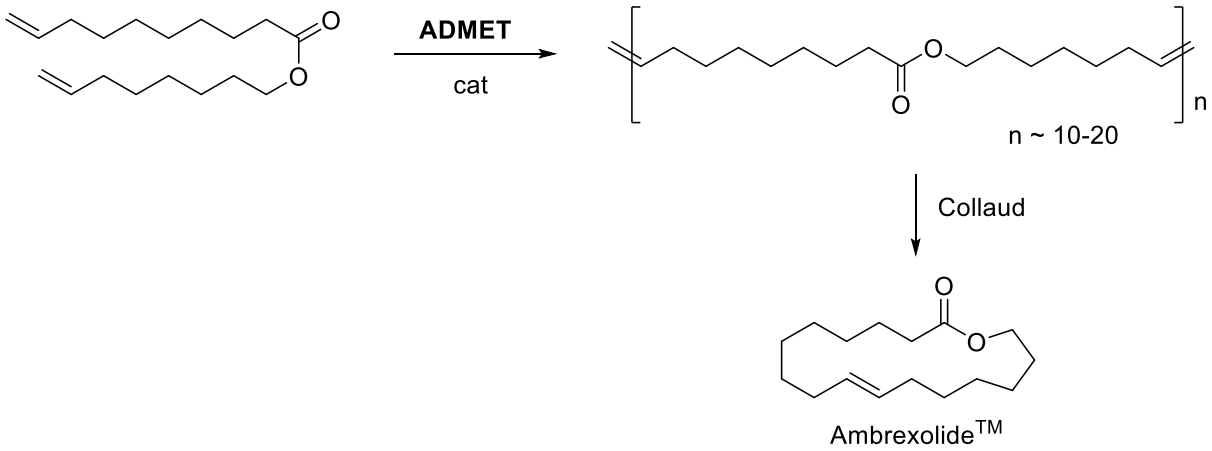
Musks form the sensual soul of a fragrance. A skilled perfumer can use them to bring softness to soaps, comfort to fresh laundry and erogenous mystery to fine fragrances. Traditionally derived from the glandular secretions of the musk deer, modern perfumery has shifted towards synthetic musks due to ethical and sustainability concerns. These compounds not only contribute to the olfactory profile by imparting a warm, sensual aroma but also interact synergistically with other fragrance ingredients, creating complex scent layers that evolve over time. Their unique properties and versatility underscore their significance in the art and science of scent creation [1].

In this work we describe the synthesis via metathesis of new and sustainable quality of Ambrettolide (AmbreXolide™), with special focus on the needs and constraints that guide the fragrance industry.



Starting from renewable octenyl decenoate, AmbreXolide™ is prepared in three steps, which are carried out under essentially solvent free conditions [2].

[1] N. Armanino, J. Charpentier, F. Flachsmann, A. Goeke, M. Liniger, P. Kraft, *Angew. Chem. Int. Ed*., **2020**, *59*, 16310-16344.

[2] *Submitted manuscript*