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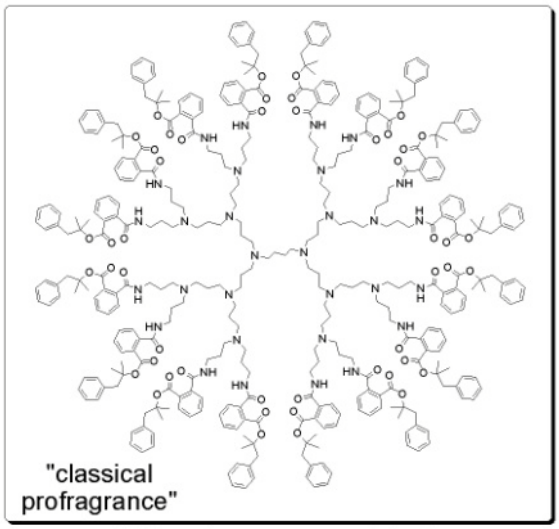
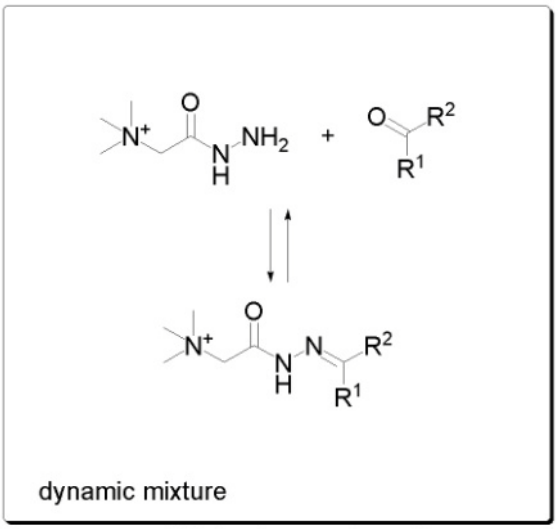
Titre: "Challenges and Opportunities to Control the Release of Volatiles by Covalent Bond Cleavage in Water-Based Systems"

Abstract: "Water is by far the most important solvent for the functioning of biological systems. Despite their hydrophobicity, flavours, fragrances and other bioactive volatiles are in general evaporated from aqueous media, which results in particular requirements to efficiently control their release and thus to prolong their duration of activity. In this context, profragrances have been described as particularly suitable delivery systems for these compounds. Inspired from natural systems, neighbouring-group participation is one example of a useful concept to influence fragrance release rates from both "small molecules" as well as different macromolecular structures. Alternatively, dynamic mixtures based on reversible covalent bond formation have recently been explored as versatile and particularly efficient delivery systems to increase the long-lastingness of fragrance perception in different practical applications. The major principles of these two concepts for the develop
ment of new materials for fragrance release will be discussed in the presentation.

Références: A. Herrmann, Angew. Chem. Int. Ed. 2007, 46, 5836-5863; A. Herrmann, Org. Biomol. Chem. 2009, 7, 3195-3204.



neighbouring- group participation



reversible hydrazone formation