Cover Picture

Charles Fehr*

The stereoselective formation and isolation of E enolates can be achieved either from the lithium enolate and isopropylephedrine or from the enol and lithium isopropylephedrate. As shown by C. Fehr on page 7119 ff., both pathways lead to the appreciated fragrance compound (S)- α -damascone which, as suggested by the cover picture, is chiral and smells rosy. The nonlinear effects observed by using a non-enantiomerically rich isopropylephedrine suggest that higher order mixed aggregates are involved in the enantioselective enol tautomerization. (B. Cogerino is thanked for the photo and Dr. A. Herrmann is thanked for assistance with the layout.)



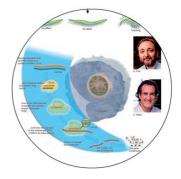


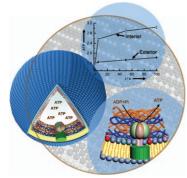
Gene Transcription (Nobel Lecture)

Gene transciption, the "converson" of a DNA strand into an RNA strand is one of the central operations of biology. The 2006 Nobel Laureate for Chemistry, R. Kornberg, describes on page 6956 ff. the ground-breaking research that led to the elucidation of the complex mechanism of eukaryotic transcription.

Gene Silencing (Nobel Lectures)

The action of gene silencing is based on the suppression of single genes by double-stranded DNA molecules. The decisive contributions made to this area by Andrew Fire and Craig C. Mello, for which they received the 2006 Nobel Prize for Medicine, are described in two Reviews on pages 6966 ff. and 6985 ff.





Microcapsules

A biomimetic system consisting of lipid-modified polyelectrolyte microcapsules with trapped F_oF_1 ATPase enables the synthesis and storage of adenosine triphosphate. The capsules can act as containers for energy storage, as described by J. Li et al. on page 6996 ff.