# Atom economical reactions...

... that involve mild and neutral reaction conditions are currently an important challenge in synthesis. In their Full Paper on page 3261 ff., R. Grée et al. describe a new tandem isomerization-aldolization process. The cover highlights 1) the novelty of using allylic alcohols as partners for the preparation of aldols, 2) the key role of free enols as intermediates, and 3) (in the middle) the postulated transition state of this reaction. The picture behind the scheme shows the high tide at St. Malo, a famous port and city near Rennes where this research has been performed.



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### **Photochromic Switches**

In their Concept article on page 3186 ff., F. M. Raymo and M. Tomasulo provide a general overview of some selected mechanisms for the manipulation of optical signals by illustrating representative protocols and configurations to photoregulate the intensities of radiation transmitted through or emitted by photochromic materials.

### A Wide Aarray of Olefins

Numerous olefins can be reduced asymmetrically by using cationic iridium-based complexes with both high selectivities and turnover numbers. In their Concept on page 3194 ff., P. G. Andersson et al. give an overview of some of the ligands and substrates reported thus far, while addressing some of the finer points of mechanism, selectivity issues and the importance of the choice of the anion.





#### Fused Imidazole Complexes

In their Full Paper on page 3201 ff., J. Barluenga et al. describe a new set of heterocyclization reactions of Group 6 Fischer carbene complexes toward 6-dimethylamino-1,4-di-azafulvene. Alkenylcarbene complexes provide high yields of imidazo[1,2-a]pyridines with complete regio- and stereo-selectivity through a [6+3] heterocyclization. On the other hand, the first [6+2] cyclization of alkynylcarbene complexes was found to occur upon reaction with the diazaful-vene system affording pyrrolo[1,2-a]imidazole derivatives.

Chem. Eur. J. 2006, 12, 3175