

Cover Picture

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The cover picture shows two new catalytic asymmetric reactions in front of an enantiomeric pair of lurs—one of the national symbols of Denmark. Chiral bisoxazoline copper complexes catalyze the reactions. The reaction on the left is the direct enantioselective Mannich reaction of carbonyl compounds with imines to give highly functionalized 4-oxo-glutamic esters, while the reaction on the right is the enantioselective nitro-Mannich reaction of nitro alkanes with imines to give optically active β -nitro- α -amino esters. Why the lur in relation to the present chemistry? Lurs exist as pairs of enantiomers and they probably belong to some of the first man-made pair of enantiomers, as they are from the Bronze Age (1000–500 BC). The lurs are the oldest musical instruments that can still be played, and are used as enantiomers. Side by side stood two lur-players, symmetric in every detail, the soft curves of the instruments swaying upwards and outwards at each side. The sonorous notes emphasized the solemn nature of the rituals. It is conceivable that the sound of the lur also accompanied the crackle of the funeral pyre when one of the tribe was cremated and laid to rest in the burial mound of his forefathers. The lurs are made of bronze (copper) and were discovered in lakes; less than 50 are known. The most famous pair of lurs was found in Brudevælde and is the pair shown on the cover. Further information about lurs can be obtained from kaj@chem.au.dk. The picture of the lurs and the accompanying music (click here to listen to the music: www.angewandte.com) are used with permission from The National Museum. For more details about the two new catalytic asymmetric reactions, see Jørgensen et al. on p. 2992 ff. and p. 2995 ff.

