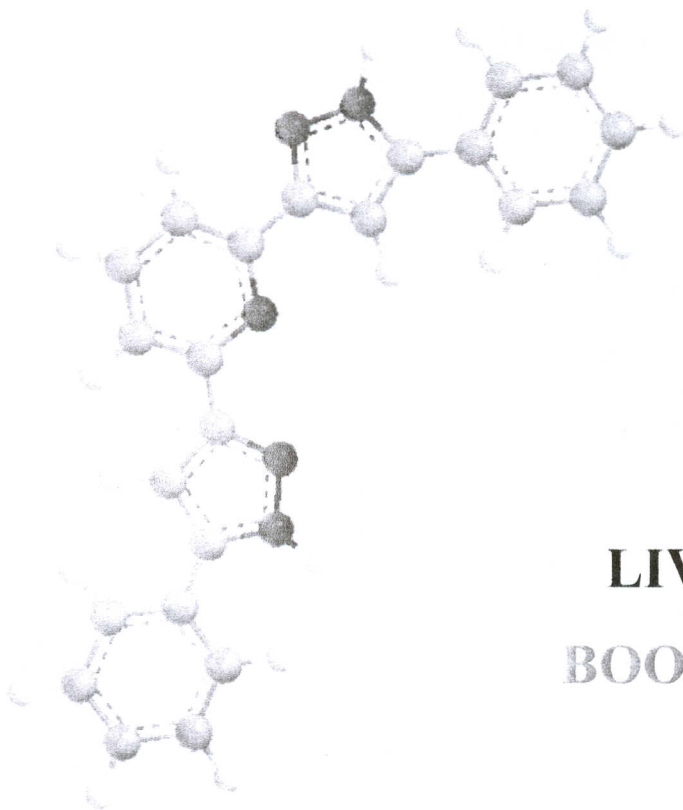
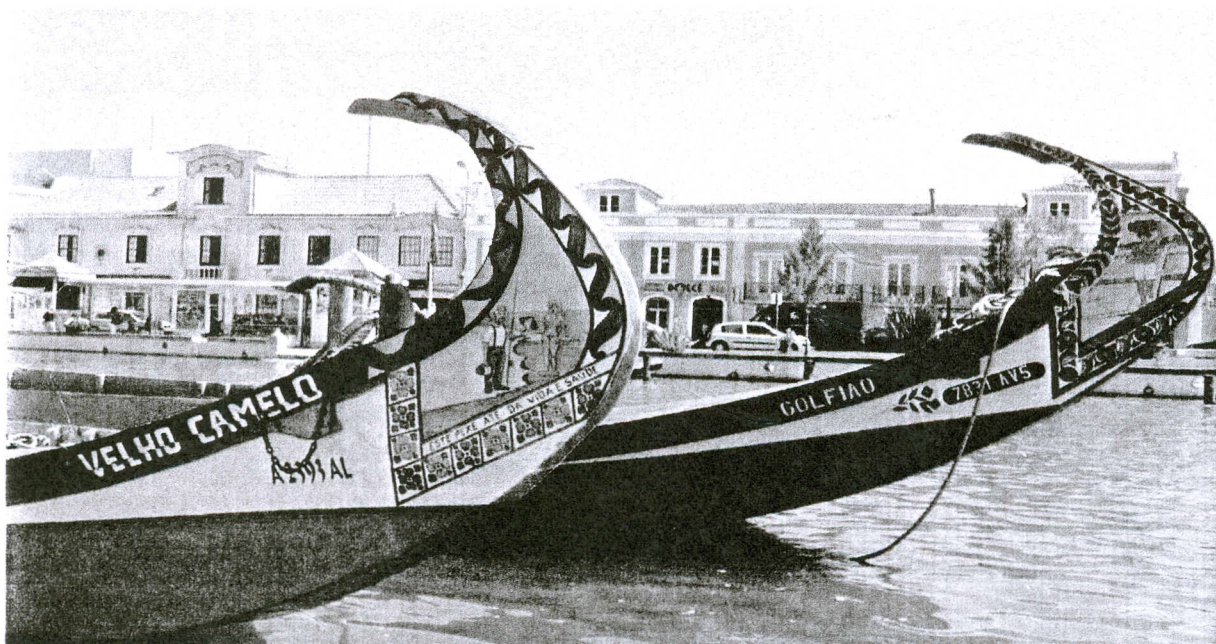




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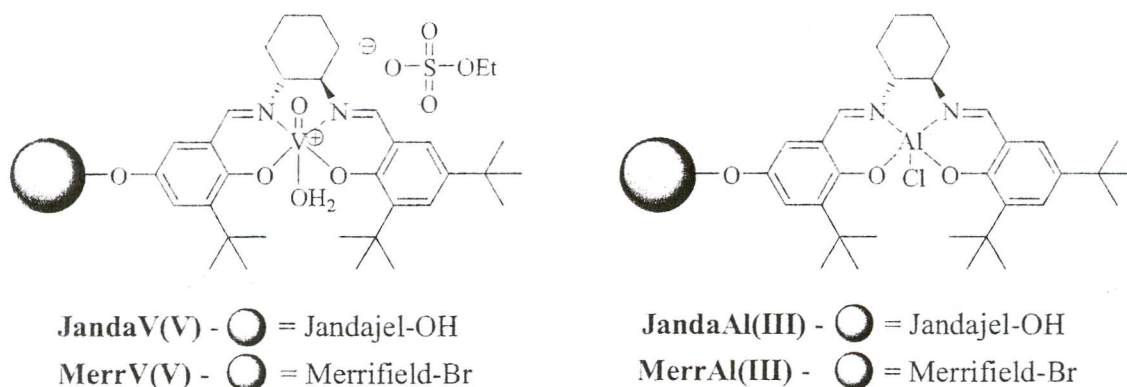
ORGANIC RESINS FUNCTIONALIZED WITH CHIRAL SALEN COMPLEXES AS HETEROGENEOUS CATALYSTS FOR THE STRECKER REACTION

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Metallic salen complexes such as aluminium(III) and vanadium(V) salen complexes proved to be very efficient homogeneous catalysts for the Strecker reaction [1,2]. Our aim in an ongoing project is to transform these kinds of catalysts into heterogeneous systems by immobilization on solid supports, to obtain several environmental and experimental advantages since the separation of the catalyst would be done by simple filtration. Herein, we present the synthesis of four new heterogeneous catalysts resulting from the immobilization of V(V) and Al(III) salen complexes on organic resins.



The heterogeneous catalysts were tested in the asymmetric addition of hydrogen cyanide (generated *in situ* from TMSCN) to *N*-benzyl benzylimine at -40 °C [2].

The preliminary results of the catalytic activity studies showed that the V(V) catalysts are more efficient than the Al(III) catalysts, as expected from comparison with the corresponding homogeneous systems. High values of conversion were obtained with the vanadium catalysts, although the enantioselectivity was smaller than the one obtained with the V(V) homogeneous catalyst [2]. Optimization of these new heterogeneous catalysts is now underway.

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References:

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- [2] Blacker, J., Clutterbuck, L. A., Crampton, M. R., Grosjean, C., North, M., *Tetrahedron: Asymmetry*, 17 (2006) 1449.