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ASYMMETRIC SYNTHESIS OF NEW ENANTIOMERICALLY ENRICHED A-AMINO ACIDS

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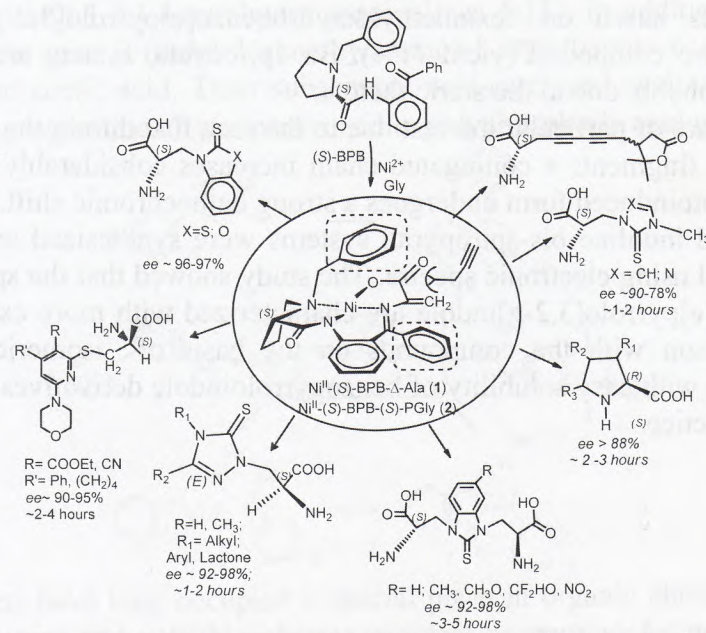
In the last 20 years the use of enantiomerically enriched non-protein α-amino acids containing unusual groups in the side chain, in various areas of medicine, pharmacy, biology, chemistry and biotechnology is actively developing [1].

This work is devoted to the development of asymmetric synthesis effective methods for enantiomerically enriched not described in literature (*S*)-α-amino acids, containing different heterocyclic groups in the side chain (Scheme).



Ni^{II} complexes of Schiff's bases of dehydroalanine or propargylglycine and chiral auxiliary (*S*)-2-N-(N'-benzylprolyl)aminobenzophenone were used as sources of chiral amino acids and dehydroamino acids synthones(1,2).

As a result effective methods of asymmetric synthesis for novel enantiomerically enriched derivatives of (*S*)-alanine (*ee* >97%) and (*S*)-propargylglycine (*ee* > 80%) were developed [2,3].

[1] A.S. Saghyan. Enantiomerically pure non-protein amino acids. Methods for obtaining, M, Nauka, p. 235, (2010)

[2] A.S. Saghyan, G.M. Mkrtchyan, A.S. Dadayan, S.G. Petrosyan, A.V. Geolchanyan, A.F. Mkrtchyan, S. Mkrtchyan, A. Gevorgyan, V.O. Iaroshenko, P.Langer Tetrahedron: Asymmetry, 24, 229-232 (2013)

[3] A.S. Saghyan, H.M. Simonyan, S.G. Petrosyan, A.F. Mkrtchyan, L.V. Khachatryan, A.V. Geolchanyan, M.A. Samvelyan, T.V. Ghochikyan, N. Kelzhanova, A.T. Saginayev, Peter Langer *Z. Naturforsch. B,* 69b, 451-460 (2014)