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## DETERMINATION OF OPTICAL PURITY OF ARYLPROPANOIC ACIDS

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2-Arylpropanoic acids are widely used as nonsteroidal anti-inflammatory drugs. Despite the fact that anti-inflammatory effect of these compounds resides exclusively in (*S*)-enantiomer [1], they are usually administered in racemic forms except naproxen where (*S*)-enantiomer is registered as API. Studies concerning the metabolism of both the enantiomers of these drugs are under investigation as well as the possibilities of using of pure (active) (*S*)- enantiomers in the therapy [2, 3].

In our group we synthesized and studied variety of urea based binaphthalene derivatives, which are useful as chiral solvating agents for NMR spectroscopy, especially for substances containing hydroxy, carbonyl, sulphoxide and amino moieties. The possibility and limits of use of the urea derivatives in the determination of optical purity of 2-arylpropanoic acids are the targets of this work.

### References:

- [1] P. J. Hayball, Chirality and nonsteroidal anti-inflammatory drugs, *Drugs* 52 (1996) 47-58.
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- [3] A.M. Evans, Enantioselective Pharmacodynamics and Pharmacokinetics of Chiral Nonsteroidal Antiinflammatory Drugs, *European Journal of Clinical Pharmacology* 42(3) (1992) 237-256.

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