

CHEMISTRY AND EURO GREEN CHEMISTRY

E-poster

May 22-23, 2019 | Rome, Italy

Sudha T, J Ind Environ Chem 2019, Volume 3 | DOI: 10.4066/2591-7331-C2-012

RECENT TRENDS IN THE SEPARATION OF CHIRAL DRUGS

Sudha T

Adhiparasakthi College of Pharmacy, India

Many of the currently used drugs in practice are mixtures of enantiomers. Although they have the same chemical structure, the enantiomeric forms of a drug can differ in potency, selectivity for receptors, transporters and/or enzymes, rate of metabolism, metabolites, excretion and toxicity, behavior in biological systems (like pharmacokinetics, bioavailability, efficacy and biopharmaceutical parameters). Therefore, it is important to promote the chiral separation and analysis racemic drugs in pharmaceutical industry in order to eliminate the unwanted isomer from the preparation. The use of single enantiomer drugs can potentially lead to simpler and more selective pharmacologic profiles included therapeutic indices, simpler pharmacokinetics due to different rate of metabolism and decreased drugs interactions. For example, Levorotary-isomer of all β -blockers is more potent in blocking β -adrenoceptors than their dextrorotary-isomer, such as S(-)-propranolol is 100 times more active than its R(+)-antipode. In the early period analytical chiral separation was a rather difficult task and separation methods were not as advanced as today. Nevertheless, it was clear that chiral drugs should be enantiomer separated and each isomer should be used separately. Enantiomers are separated by using the modern techniques like HPLC and Chiral HPLC has proven the best methods for the direct separation and analysis of enantiomers. The physical method and enantioselective immunoassays are used for characterization of chiral or racemic drugs. The chiral separation of racemic drugs is a necessary operation in pharmaceutical industry. Therefore the development of new chiral separation techniques and will be a topic subject in academic research as well as in industrial advance. It is also important to give more information about chiral drugs especially racemic form to health care professionals in order to help them to finding an optimal treatment and a right therapeutic control.

BIOGRAPHY

Sudha T has completed her PhD from Vels University, India. She is the Associate professor of Adhiparasakthi College of Pharmacy, affiliated to The Tamil Nadu Dr. MGR Medical University, Tamil Nadu, India. She has over 40 publications that have been cited over 15 times. She has been serving as an Editorial Board Member of reputed journals. She has published the book entitled "PHARMACEUTICAL ANALYSIS-I" by PV books.

jvchrsty@yahoo.co.in



Note: