

Synthesis, Semiempirical, Stereoselectivity and Pharmacological Activity of a New Class of Spiro Pyrrolidine and Isoquinoline Derivatives

A. V. Londhe, B. Gupta, S. Kohli, P. Pardasani, and R. T. Pardasani

Department of Chemistry, University of Rajasthan, Jaipur 302 004, India

Reprint requests to Prof. Dr. R. T. Pardasani. E-mail: pardasanirt@satyam.net.in

Z. Naturforsch. **61b**, 213 – 220 (2006); received April 22, 2005

1,3-Dipolar cycloaddition of azomethine ylides derived from acenaphthylene-1,2-dione and 5-methyl-benzo[b]-thiophene-2,3-dione with L-proline, thiazolidine-4-carboxylic acid and 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid with various electron deficient dipolarophiles leads to the formation of novel spiroheterocycles having two or more chiral centers. Semiempirical studies have been performed to understand the stereochemical course of the reaction. The synthesized cycloadducts have been screened for antimicrobial and toxicological activity.

Key words: Spiro Pyrrolidine, Isoquinoline Derivatives