

# Synthetic and Biological Activity Studies on a New Cyclic Pentapeptide, Cyclonitroproctolin

Boja Poojary<sup>a</sup> and Shiddappa L. Belagali<sup>b</sup>

<sup>a</sup> Department of Chemistry, Mangalore University, Mangalagangothri-574 199, India

<sup>b</sup> Department of Environmental Sciences, Mysore University, Mysore-575 005, India

Reprint requests to Dr. B. Poojary. Fax: 91 824 2287 367. E-mail: bojapoojary@yahoo.com

Z. Naturforsch. **60b**, 1308 – 1312 (2005); received November 10, 2004

The synthesis of a new biologically active cyclic pentapeptide, cyclonitroproctolin, cyclo(-Arg(NO<sub>2</sub>)-Tyr-Leu-Pro-Thr-) by solution phase synthesis is described. The structure of the synthetic peptide was characterized by IR, NMR, FAB mass and analytical data. The newly synthesized compound was screened for its antimicrobial and pharmacological activities.

*Key words:* Cyclonitroproctolin, Antimicrobial Activity, Pharmacological Activity, *p*-Nitrophenyl Ester Method