Surfactin Isoforms from Bacillus coagulans

Ewa Huszcza^{a,b,*} and Bogdan Burczyk^c

^a Institute of Organic Chemistry, Biochemistry and Biotechnology, Wrocław University of

^c Institute of Organic and Polymer Technology, Wrocław University of Technology,

- Technology, 50-370 Wrocław, Poland

 b Present address: Department of Chemistry, Agricultural University, Norwida 25, 50-375 Wrocław, Poland. Fax: 0048-071-3283576. E-mail: huszcza@ozi.ar.wroc.pl
- 50-370 Wrocław, Poland
- * Author for correspondence and reprint requests

 Z. Naturforsch. 61 c, 727 733 (2006); received February 7/March 29, 2006

Key words: Biosurfactant, Surfactin Isoforms, Bacillus coagulans

Bacillus coagulans has been found to produce several surfactins that are powerful lipopeptide surfactants. Four main components with molecular weights 1007, 1021 and 1035 Da were separated. Their structures have been confirmed by spectrometric and spectroscopic studies and by acid hydrolysis. The compounds were found to represent two pairs of surfactin isoforms in which β -hydroxy-iso- C_{14} or anteiso- C_{15} fatty acids are linked to the [Leu7] or [Val7] heptapeptide moiety by both an amide group and a lactone bond.