http://dx.doi.org/10.19261/cjm.2018.482

## STRUCTURAL ASPECTS OF LACTOFERRIN AND SERUM TRANSFERRIN OBSERVED BY FTIR SPECTROSCOPY

Gheorghe Duca<sup>a</sup>, Lilia Anghel <sup>a\*</sup>, Raul Victor Erhan <sup>b,c</sup>

<sup>a</sup>Institute of Chemistry of Academy of Sciences of Moldova, 3, Academiei str.,

Chisinau MD-2028, Republic of Moldova

<sup>b</sup>Institute for Energy Technology, 18, Instituttveien str., Kjeller 2027, Norway

<sup>c</sup>Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering, 30, Reactorului str.,

Bucharest - Magurele MG-6, Romania

<sup>\*</sup>e-mail: lilia.anghel@chem.asm.md

**Abstract.** In this work, Fourier transform infrared spectroscopy was used to highlight the structural differences between the human lactoferrin and human serum transferrin. The results clearly show the structural differences of human lactoferrin and human serum transferrin. The second derivative analysis of the FTIR spectra allows the direct identification of secondary structure components of the human lactoferrin and human serum transferrin.

**Keywords:** human lactoferrin, human serum transferrin, FTIR spectroscopy, amino acid, secondary structure.

Received: 29 March 2018/ Revised final: 02 May 2018/ Accepted: 02 May 2018