**UV-VIS SPECTROSCOPY OF BLOOD SERUM IN EFFICIENCY EVALUATION OF ATHLETES IN NORMOBARIC HYPOXIA**

*Zofia Drzazga1, Iza Schisler1, Stanisław Poprzecki2*

*1Department of Medical Physics, A. Chełkowski Institute of Physics, The Silesian Centre for education and Interdisciplinary Research, University of Silesia, ul. 75 Pułku Piechoty 1A, 41-500 Chorzów, Poland*

*2Department of Physiological and medical Sciences, Department of Biochemistry, The Jerzy Kukuczka Academy of Physical Education in Katowice, ul. Mikołowska 72a, 40-065 Katowice, Poland.*

Hypoxic training can be used for improving sport performance. Serum samples from a group of elite cross-country skiers were studied using fluorescence and circular dichroism measurements. Statistical analysis showed the marked impact of simulated altitudes (3000 m, 4000 m and 5000 m ASL) as well as endurance exercise on fluorescence and the secondary structure of blood serum proteins The results provide additional information on the human adaptation to physical effort in normoxic and simulated hypoxic conditions.