Determination of the Lipophilicity of Some New Derivatives of Semicarbazide and 1,2,4-Triazol-5-one with Potential Antibacterial Activity

Monika Pitucha\textsuperscript{a}, Beata Polak\textsuperscript{b}, Ryszard Świeboda\textsuperscript{c}, Urszula Kosikowska\textsuperscript{d}, and Anna Malm\textsuperscript{d}

\textsuperscript{a} Department of Organic Chemistry, Medical University, Staszica 6, 20-081 Lublin, Poland
\textsuperscript{b} Department of Physical Chemistry, Medical University, Staszica 6, 20-081 Lublin, Poland
\textsuperscript{c} Department of Inorganic Chemistry, Chair of Chemistry, Medical University, Staszica 6, 20-081 Lublin, Poland
\textsuperscript{d} Department of Pharmaceutical Microbiology, Medical University, Chodzki 1, 20-093 Lublin, Poland

Reprint requests to Dr. Monika Pitucha. E-mail: monika.pitucha@am.lublin.pl


The chromatographic behavior of new derivatives of 1,2,4-triazol-5-one and semicarbazide was determined. The lipophilicity was confirmed by the use of a RP-TLC method. The partition coefficients were calculated by use of theoretical procedures. The correlation between theoretical and experimental lipophilicity was determined. All obtained compounds were tested for their antimicrobial activity.

\textit{Key words:} Semicarbazide, 1,2,4-Triazol-5-one, Lipophilicity, Antibacterial Activity