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Title: Langmuir monolayer characteristics of oleoylamide analogues—promising anti-obesity agents

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Abstract: Oleoylamide analogues which are considered as promising anti-obesity agents [1] were employed for systematic physicochemical characterization of Langmuir monolayers i.e. monomolecular insoluble films form at the air/water interfaces. Our researches were carried out using the Langmuir film balance, by means of which we registered surface pressure–area (π -A) as well as electric surface potential–area (ΔV -A) isotherms for selected oleoylamide analogues. Furthermore, we have also examined the impact of different factors such as: speed of compression, number of molecules spread at the surface and subphase temperature, on the characteristics of studied isotherms. In order to illustrate the texture of explored monolayers the Brewster Angle Microscope (BAM) was used. The analysis of obtained results provided valuable information on the organization of studied oleoylamide analogues at the air/water interface that can be relevant to conduct further research on the potential use of these compounds as anti-obesity agents.

References

[1] C. Tanase, C.C. Negut, D.I. Udeanu, E.M. Ungureanu, M. Hrubaru, C.V.A. Munteanu, S.P. Voicu, F. Cocu, A.N. Ionita, *Revista de Chimie* 65 (7), 2014, 768–773.