

# The Influence of Plant Hormones on Phospholipid Monolayer Stability

Barbara Gzyl-Malcher<sup>a,\*</sup>, Maria Filek<sup>b,c</sup>, Gerald Brezesinski<sup>d</sup>, and Antje Fischer<sup>d</sup>

<sup>a</sup> Department of Physical Chemistry and Electrochemistry, Faculty of Chemistry,  
Jagiellonian University, Ingardena 3, 30-060 Kraków, Poland. Fax: 0048 126 34 05 15.  
E-mail: gzyl@chemia.uj.edu.pl

<sup>b</sup> Institute of Biology, Pedagogical Academy, Podbrzezie 3, 31-054 Kraków, Poland

<sup>c</sup> Institute of Plant Physiology, Polish Academy of Sciences, Podlużna 3, 30-239 Kraków,  
Poland

<sup>d</sup> Max Planck Institute of Colloids and Interfaces, D-14476 Golm/Potsdam, Germany

\* Author for correspondence and reprint requests

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The influence of hormones in water subphase on the stability of monolayers built of phospholipid mixtures extracted from embryogenic (PLE) and nonembryogenic (PLNE) wheat calli was examined. Additionally, experiments on individual lipids, dipalmitoylphosphatidylcholine (DPPC) and dipalmitoylphosphatidic acid (DPPA), were performed. DPPC was chosen because it was the main phospholipid present in both calli. Negatively charged DPPA could mimic a negatively charged natural mixture of lipids. As hormones, auxins (IAA and 2,4-D), cytokinins (zeatin and kinetin) and zearalenone were chosen. The time of monolayer stability for PLNE calli was much longer than for PLE calli. Kinetics of monolayer stability of PLNE was similar to DPPA, whereas that of PLE was similar to DPPC. Generally, hormones increased the time after which the monolayer stability was reached and decreased the surface pressure. The greatest effect was observed for auxins (especially IAA), whereas cytokinins affected the monolayer stability to a lesser degree.

**Key words:** Phospholipid Monolayer, Auxins, Cytokinins