

## Supplementary Materials

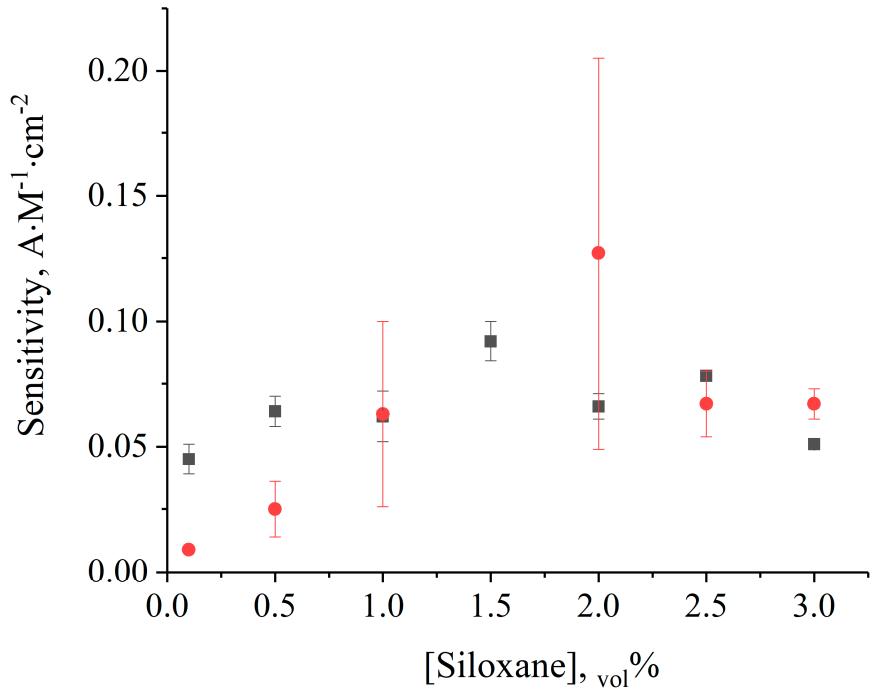


Figure S1. Dependence of the lactate biosensor sensitivity on the siloxane concentration in the membrane solution. Siloxanes: ETES (■) and MTES (●)

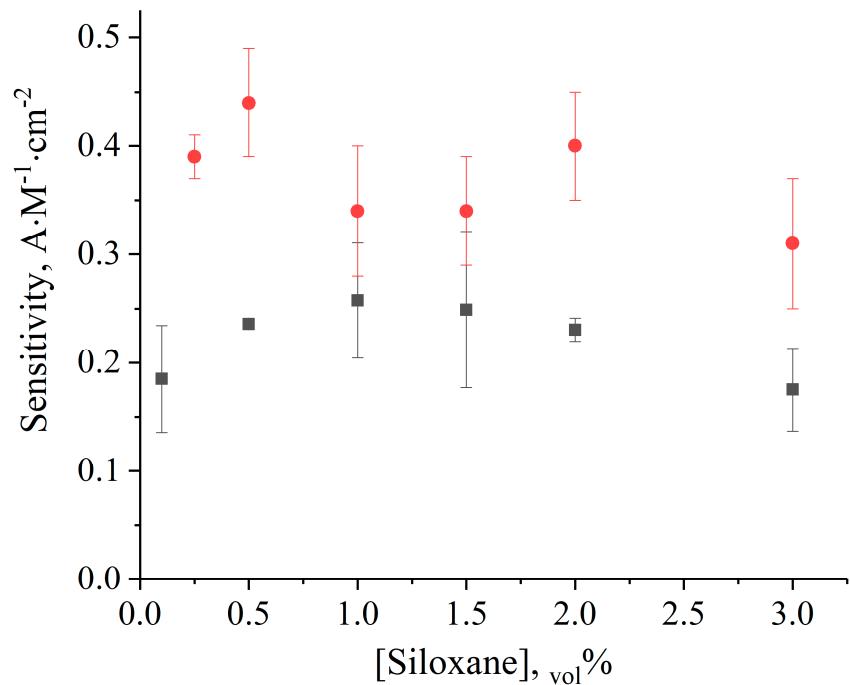


Figure S2: Dependence of the lactate biosensor sensitivity on the siloxane concentration in the membrane solution. Siloxanes: VTMS (■) and VTES (●).

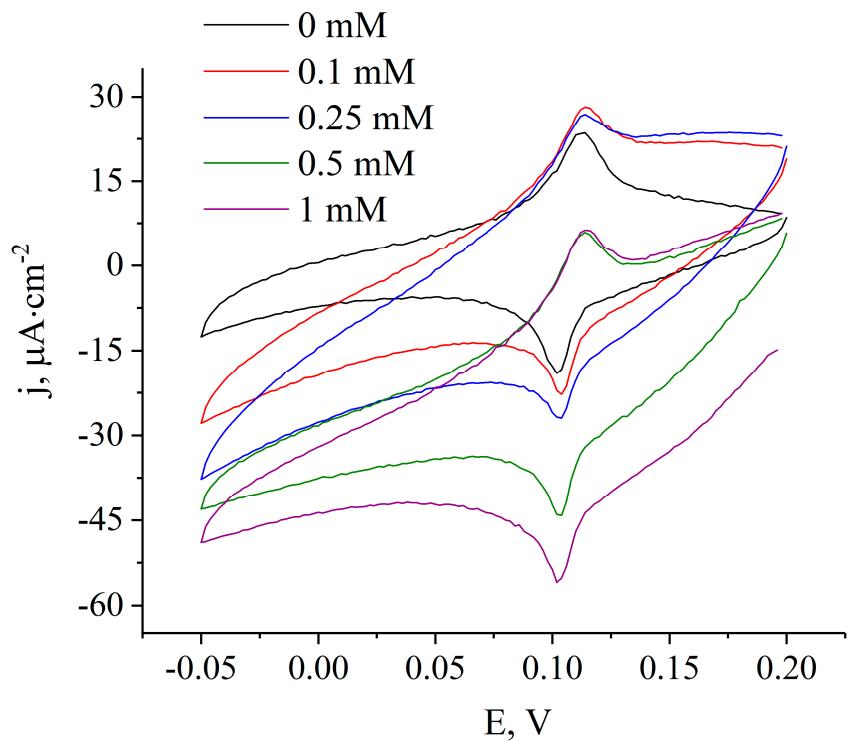


Figure S3: Cyclic voltammogram for the lactate biosensor based on 1% MAPS in phosphate buffer solution with different lactate concentrations (2 mV/s).

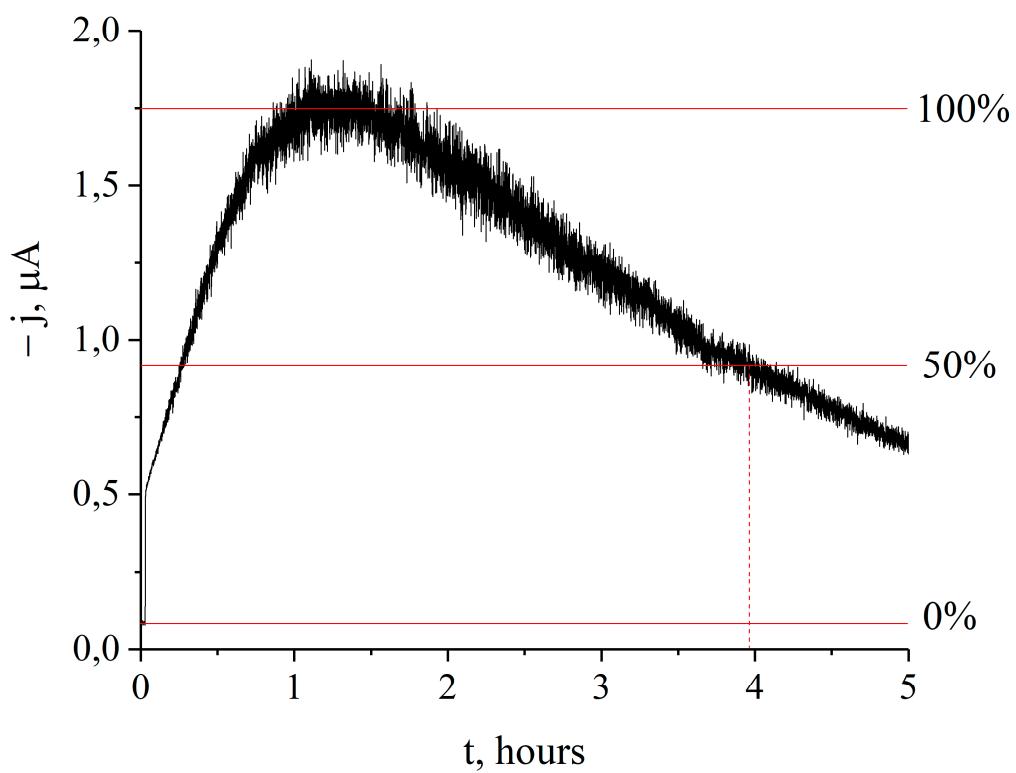


Figure S4: The operational stability of the lactate biosensors based on 1% MAPS; ( $E = 0.00$  V, 0.25 mM lactate, phosphate buffer, pH 6.0, upon stirring).