

Development of mechanoluminescent thin films for real time stress detectors

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I N V E S T I N G I N Y O U R F U T U R E

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Project partner: Sidrabe Vacuum Ltd, B.A.Sc. Matiss Piesins.

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About project implementation (01.04.2023 – 30.06.2023)

During the research period of Project No. 1.1.1.1/20/A/138 " Development of mechanoluminescent thin films for real-time stress detectors", the adaptation of laboratory equipment for a modified technological process was continued.

Modification of technological process and equipment to allow for sample handling under controlled levels of oxygen and water vapor is ongoing. This is due to identified issues with the aluminate-based materials being very sensitive to the presence of oxygen and water vapor when heated over 200 °C. The presence of these substances negatively affects both the structure and material purity during coating deposition which needs to be performed at temperatures up to 400 °C.

Together with LU CFI, starting parameters and plans for the next series of samples have been defined and are to be prepared once the modifications have been implemented.