

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 Leader: Institute of Solid State Physics, University of Latvia, Dr. habil. Phys. Donats Millers/ from 01.05.2022. Dr. Phys. Anatolijs Truhins.

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

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About project implementation (01.10.2022 – 31.12.2022)

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 planned technological research was continued.

Several experimental series of samples with coatings on a metal substrate using rare-earth metal doped targets were prepared with variable coating process parameters to achieve a better crystallinity of functional mechanical luminescent thin films.

Based on the feedback from the LU CFI on the parameters of the coated material, samples with different coating thicknesses were prepared by varying the substrate treatment temperature as well as process pressure and the distance between the sample substrate and the sputtering source target.