

## **Influence of the acid and alkaline texturization processes on basic optoelectronics parameters of the silicon solar cells**

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Increasing the solar cell efficiency is a part of continuous improvement program at the Institute of Metallurgy and Materials Science Polish Academy of Sciences and new PhD study is dedicated to solve one of the major texturing problems of the Si surface in the aspect of simple, inexpensive and verified technology having potential for mass production.

Process used in the IMMS PAS consumes about one hour and is not effective for multicrystalline silicon wafers. The aim of PhD thesis is improving the method based on alkaline solutions for monocrystalline Si and elaborate new and simple one based on HF, HNO<sub>3</sub> for multicrystalline Si. Those processes require a precise control. The researches will combine the texturing process with spectral response, life time of the minority current carriers and photoconversion efficiency of the ready solar cells.