To: IEEE Journal of Photovoltaics Editorial Board
Subject: Article Submit

Dear Editors,

Enclosed with this letter you will find en electronic submission of manuscript entitled "An Evaluation for Iron Contamination in Silicon Solar Cell Using Ideality Factor and Machine Learning" by O. Olikh, O. Lozitsky, and O.Zavhorodnii. This is an origin paper which has not simultaneously in whole or in part been submitted anywhere else. No conflict of interest exits in the submission of this manuscript.

It is well known that impurities are crucial for the solar cells performance. There are many experimental methods for impurity evaluation, such as the infrared spectroscopy, deep level transient spectroscopy, photoluminescence, thermally stimulated capacitance and current, secondary ion mass spectrometry etc. These methods are complicated enough and demand a special setup. At the same time, there is a simpler and commonly used technique, which is the analysis of the solar cell current–voltage characteristics. The present manuscript describes the method of contaminant concentration evaluation by using the ideality factor value, which extracted from current-voltage curve. The method is based on results of numerical simulation of solar cells and use a deep neural network. We believe that such way of defect characterisation would be of interest to the readers

We would very much appreciate if you would consider the manuscript for publication in the *IEEE Journal of Photovoltaics*.

Sincerely yours,
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