European Becquerel Prize for Outstanding Merits in Photovoltaics

To mark the 150th anniversary of Alexandre-Edmond Becquerel's discovery of the photovoltaic effect in 1839, the European Commission founded in 1989 the European Becquerel Prize for outstanding contributions to the development of Photovoltaic Solar Energy. It is awarded for the twenty-sixth time in 2018 on the occasion of the European Photovoltaic Conference in Brussels. After a public nomination phase the Prize winner was selected by the Becquerel Prize Committee.

Prof. Peter Wuerfel

is the twenty-sixth Becquerel Prize winner. He receives the award in recognition of his fundamental contribution to the theory of photovoltaic energy conversion.

His theoretical approach is characterized by a consistent application of thermodynamic concepts: electrochemical potentials for modelling processes in the absorber material and the chemical potential of light - deduced from the generalization of Planck's radiation law – for characterizing the absorbed solar radiation and the emitted luminescent radiation of solar cells.

By providing a deeper understanding of photovoltaic energy conversion, the work of Prof. Wuerfel has significantly influenced the development of technologies like selective contacts or tools like the luminescence analysis of solar cells.