

Laser transmission test method

Problem / Motivation

- Increasing use of hand-held high-power laser systems in industrial environments leads to hazards from the use of laser radiation in the kilowatt range
- Potential hazards regarding injuries to the hands and arms as well as the upper part of the body
- Growing need for suitable personal protective equipment

Solution

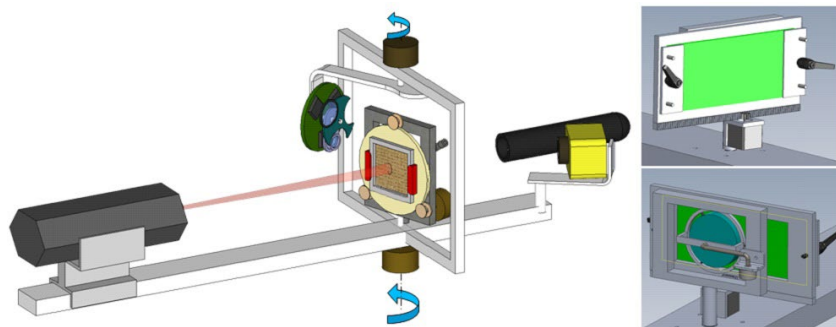
- Development of a revised and state-of-the-art test setup as well as an evaluation method for transmission measurement in the ultraviolet, visible and near-infrared spectral range against laser radiation
- Real irradiation tests of personal protective equipment (PPE) respectively PPE textiles and rapid measurement of transmitted laser impact energy
- Selection of flame-retardant PPE textiles for the validation tests
- Analysis of the behaviour of protective clothing when exposed to different laser wavelengths
- Development of evaluation parameters to assess the effectiveness of protective equipment against skin and short-term damage

Project Launch

04/2024

Project Partner

currently none,
open for enquiries



Schematic representation of the measurement setup for evaluating the optical and thermophysical properties of possible laser protection textiles

Acknowledgement

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The final report on this project is available on request.

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