



International Commission on Illumination  
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**PRESS RELEASE**

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## **Infrared Cataract**

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There has long been a debate about the dose response curve, action spectrum and mechanism for the production of infrared cataracts. Some scientists believe that the damage mechanism is purely thermal, others suggest that there is some evidence that it could be photochemical. If the mechanism is photochemical, a strong wavelength dependence in the near infrared spectral region will be present, and this will have great significance for lamp safety, IR-A medical devices, occupational exposure limits and the design of industrial eye protection. With the advent of high-power infrared LEDs and diode lasers as well as wavelength-tuneable infrared lasers (e.g. Titanium Sapphire laser), it is now possible for the first time to conduct a definitive and conclusive laboratory study of the action spectrum for infrared cataract. Manufacturers of LEDs, lamps and lasers should be intensely interested in the results of such studies. If the aetiology (cause) is purely thermal, the ambient temperature as well as the spectral content of the infrared irradiation becomes important and this is reviewed in this report. Currently the weight of evidence suggests that the aetiological mechanism is thermal.

The publication is written in English, with a short summary in French and German. It consists of 30 pages with 13 figures and two tables and is readily available from the [CIE Webshop](#) or from the National Committees of the CIE.

The price of this publication is EUR 96,- (Members of the National Committees of the CIE receive a 66,7 % discount on this price).