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## **Abstract ( )**

How can we know the exact radiation dose after an unexpected radiological accident or attack? As normally a person of the public does not have an electronic personal dosimeter, it would be needed to use materials which he/she have at the time of the accident for the dose estimate. Various approaches for this purpose have been developed for the last decades and as the most recent method, it was proposed to use the parts of a portable electronic tools such as mobile phones.

Dr. Discher's group found that the glass displays of commercial mobile phones are sensitive to ionizing radiation and can be used for retrospective, individual dosimetry in a radiological accident or attack. In this lecture, Dr. Discher will explain understandably the following matters:

- (i) Fundamentals of emergency dosimeters and give some examples;
- (ii) Dosimetric properties of the example "display glass" by applying the technique of thermoluminescence;
- (iii) Additional properties, like energy and angular dependence; and
- (iv) Irradiation trials of testing the robustness of the developed protocol.