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RADIATION CONTROL DEPARTMENT
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Secondary Standard Dosimetry Laboratory

REPORT

X-Ray and Gamma Survey Meter

Rotem Industries Ltd.

04.02.2019

The procedure described below was conducted on the 04.02.2017 at the request of Rotem Industries Ltd.

The calibrated device.

Rotem RAM ION s/n 2218-050 with cylindrical plastic cover for $H^*(10)$

The calibration equipment.

Reference ionization chamber TW32002 s/n 00318 and UNIDOS webline electrometer s/n 475

The calibration procedure.

The RAM ION was exposed to X-ray beams using the ambient dose equivalent $\dot{H}^*(10)$ rate of 5 mSv/h. Generating potential was changed in the range of 80 - 200 kV. The dosimeter was exposed from its front side.

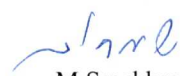
The reference chamber and the calibrated instrument were interchangeably placed in the radiation beam at a distance of 200cm from the focus.

Results.

The table below shows the energy response of the instrument.

Radiation Quality	kV	HVL mm Cu	Instrument response
N-40	40	2.69 mm Al	1.23
N-60	60	0.24	1.19
N-80	80	0.59	1.19
N-100	100	1.13	1.14
N-120	120	1.73	1.08
N-150	150	2.40	1.03
N-200	200	4.06	0.95

The total uncertainty of the instrument response is unlikely to exceed $\pm 7\%$ at the 95% confidence level.


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