

MEASUREMENT OF THE RADIATION OF MICROWAVE OVENS

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Due to the high increase of the use of microwave ovens in households and restaurants, it was necessary to control the radiation of each installed oven. Till now there are no law or regulations by the Austrian Government. Two years ago a working-group was established to work out limits for occupational exposures and exposures for members of the public.

While the first part of the work shows the fundamental characteristics of microwave radiation, the exposure effects in man and the standards, the second part gives the measurement techniques for measuring the power density of the microwave ovens.

Over 50 microwave ovens were measured and also the electrical circuit was controlled. Nevertheless there was no value over the allowed limit of 5 mW/cm^2 in 5 cm distance, we could find out some problems, for instance the outlets of the ventilation system and the doors of the cookingroom.

As a result it was tried to group the different ovens and to show their advantages and disadvantages.