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Operating instructions



Fig. 1: Radioactive source Ra-226, 4.0 kBq 09041-00

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1 SAFETY INSTRUCTIONS



Caution!

- Read the operating instructions thoroughly and completely prior to using this instrument. This is important for your own protection and for avoiding damage to the unit.
- Do not start up this instrument should there be visible signs of damage to it.
- Only use the instrument for the purpose for which it is intended.
- Whenever radioactive substances are handled, the determinations of the particularly valid version of the Radioactive Protection Regulations, as well as the legal or administrative regulations for radiation protection in schools of the particular country, are to be observed.
- When not in use, store the preparation in the box provided for it.
- Protect the preparation against access to it of unauthorized persons. The PHYWE steel cabinet (art. no.: 97320-00) is suitable for the storage of radioactive preparations.

2 PURPOSE AND CHARACTERISTICS

The radioactive source Radium-226 with an activity of 4 kBq is especially developed as a mixed emitter for experiments with α -, β - and γ -rays.

3 HANDLING

The radium-226 is in the form of sulfate imbedded in gold and additionally covered with a 2 µm thick gold-palladium alloy. For this reason, the energy of the emerging α-particles is reduced to about 4.5 MeV. To prevent a contact the source is mounted in a 7 mm deep bore hole. The source has to be replaced in the storage-box after use.

4 TECHNICAL DATA

Nuclide Ra-226
Half life 1600 a
Radiation α, β, γ
Activity 4 kBq
α-energy approx. 4.5 MeV
γ-energies (82/186/242/293/352/609) keV
Dimensions $d = 12$ mm, $l = 85$ mm
Weight approx. 0.38 kg

5 WARRANTY

We give a warranty of 24 months for units that are supplied by us inside the EU, and a warranty of 12 months outside the EU. The following is excluded from the warranty: damage that is due to non-compliance with the operating instructions, improper use, or natural wear.

The manufacturer can only be held liable for the function and safety-relevant properties of the unit, if the maintenance, service, and modifications of the unit are performed by the manufacturer or by an institution that is expressly authorised by the manufacturer.

6 DISPOSAL

The packaging mainly consists of environmentally-friendly materials that should be returned to the local recycling stations.



Do not dispose of this product with normal household waste.

If this unit needs to be disposed of, please return it to the address that is stated below for proper disposal.

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