

LIST OF COSTS

(VALID FROM 01.02.2019)

The Physikalisch-Technische Bundesanstalt (PTB) raises charges (for fees and outlay) for its services in accordance with the "Kostenverordnung für Nutzleistungen" (Regulations governing Charges for Services Supplied by PTB) of 17 December 1970 (Federal Law Gazette I p. 1745), which was amended by the regulation of 15 November 2018 (Federal Law Gazette 2018 Part I No. 38, p. 1877). The following rates were fixed for the calibrations and irradiations in neutron reference radiation fields of radionuclide neutron sources available at PTB. All listed costs are subject to a change of the regulations.

1. List of costs

1.1. Calibration of a **neutron ambient dose equivalent rate meter** in neutron radiation fields of radionuclide neutron sources

1.1.1. For the **basic test** the **costs** are **2,340 Euro**.

- 1.1.1.1. Determination of a calibration factor for ^{252}Cf (or $^{241}\text{Am-}^9\text{Be}(\alpha,n)$) neutron radiation in terms of $\dot{H}^*(10)$.
- 1.1.1.2. Photon sensitivity test (^{137}Cs , $\dot{H}^*(10) = 10 \text{ mSv h}^{-1}$).
- 1.1.1.3. Photon sensitivity test (^{137}Cs , $\dot{H}^*(10) = 10 \text{ mSv h}^{-1}$) with simultaneous irradiation with ^{252}Cf neutron radiation ($\dot{H}^*(10) = 1 \text{ mSv h}^{-1}$).
- 1.1.1.4. Stability measurements with a PTB test source.
- 1.1.1.5. Determination of the background indication (if any) at the calibration position.

1.1.2. Supplements

- 1.1.2.1. An additional **linearity check** with 3 supplementary measuring points increases the **costs** by **390 Euro**.
- 1.1.2.2. By additional experimental determination of the **field-specific correction factor** for $^{241}\text{Am-}^9\text{Be}(\alpha,n)$ neutron radiation the costs increase by **390 Euro**.
- 1.1.2.3. An additional experimental determination of the **field-specific correction factor** for $^{252}\text{Cf}(\text{D}_2\text{O mod.}, 1 \text{ mm Cd})$ neutron radiation increases the **costs** by **390 Euro**.
- 1.1.2.4. An additional experimental determination of the **field-specific correction factor** for the scattered radiation field of a ^{252}Cf neutron source in the irradiation facility increases the **costs** by **390 Euro**.
- 1.1.2.5. An additional experimental determination of the **field-specific correction factor** for the scattered radiation field of a $^{241}\text{Am-}^9\text{Be}(\alpha,n)$ neutron source in the irradiation facility increases the **costs** by **390 Euro**.
- 1.1.2.6. An additional experimental determination of the **field-specific correction factor** for the scattered radiation field of a $^{252}\text{Cf}(\text{D}_2\text{O mod.}, 1 \text{ mm Cd})$ neutron source in the irradiation facility increases the **costs** by **390 Euro**.

1.2.1.2 Irradiation of a **neutron survey meter** with radionuclide neutron sources in terms of ambient dose equivalent

1.2.1. For the basic fee per test report the **costs** are **585 Euro**.

1.2.2. For n irradiations the **costs** are: $n \times 292.50$ **Euro**.

1.3. Irradiation of **neutron personal dosimeters** on an ISO water phantom with radionuclide neutron sources

1.3.1. For the basic fee per test report the **costs** are **585 Euro**.

1.3.2. For n irradiations the **costs** are: $n \times 292.50$ **Euro**.

Note: Up to four dosimeters can be irradiated simultaneously for irradiations at zero degrees, two dosimeters for irradiations at angles different to zero degrees and eight dosimeters for irradiations behind shadow objects in scattered neutron radiation fields.

1.4. Irradiation of a neutron measuring instrument in the **thermal neutron reference radiation field** in terms of neutron fluence rate or dose equivalent rate

1.4.1. For the basic fee per test report the **costs** are **585 Euro**.

1.4.2. The costs shall be calculated according to the actual time expenditure with an hourly rate of **195 Euro**.

1.5. Irradiation of a neutron dosimeter in the **thermal neutron reference radiation field**, equivalent dose up to 0.5 mSv

1.5.1. For the basic fee per test report the **costs** are **585 Euro**.

1.5.2. For n irradiations the **costs** are: $n \times 292.50$ **Euro**.

Note.: Up to four personal dosimeters can be irradiated simultaneously on the ISO water phantom.

1.6. Irradiation of a neutron dosimeter in the **thermal neutron reference radiation field**, equivalent dose exceeding 0.5 mSv

1.6.1. For the basic fee per test report the **costs** are **585 Euro**.

1.6.2. For n irradiations the **costs** are: $n \times 585$ **Euro**.

Note.: Up to four personal dosimeters can be irradiated simultaneously on the ISO water phantom.

1.7. **Hourly rate**

1.7.1. The **hourly rate** for services invoiced according to the actual time expenditure is **195 Euro**.

2. General information

2.1. Along with the calibration certificate / test report you will receive a bill of costs. The General Terms and Conditions of Business (AGB) of the Physikalische-Technische Bundesanstalt for conformity assessments, testing, measuring and calibration services apply:

(<https://www.ptb.de/cms/en/metrological-services/terms-and-conditions-of-business.html>)

2.2. In this context, the PTB acts as a statutory body under public law without legal capacity. Measuring and calibration services are exclusively on the basis of the General Terms and Conditions of PTB and any conflicting General Terms and Conditions of the customer are excluded.

2.3. The stated fees do not include costs for transport, customs clearance, and packing materials. These costs are borne by the customer.

2.4. Contact persons are:

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