

## SECTION G — PHYSICS

### G01 MEASURING; TESTING

**G01T MEASUREMENT OF NUCLEAR OR X-RADIATION** (radiation analysis of materials, mass spectrometry G01N 23/00; tubes for determining the presence, intensity, density or energy of radiation or particles H01J 47/00)

#### Note(s)

1. This subclass covers the measurement of X-radiation, gamma radiation, corpuscular radiation, cosmic radiation, or neutron radiation.
2. Attention is drawn to the Notes following the title of class G01.

**1/00 Measuring X-radiation, gamma radiation, corpuscular radiation, or cosmic radiation** (G01T 3/00, G01T 5/00 take precedence) [2]

- 1/02 • Dosimeters (G01T 1/15 takes precedence) [2]
- 1/04 • • Chemical dosimeters (G01T 1/06, G01T 1/08 take precedence)
- 1/06 • • Glass dosimeters
- 1/08 • • Photographic dosimeters
- 1/10 • • Luminescent dosimeters
- 1/105 • • • Read-out devices (G01T 1/115 takes precedence) [2]
- 1/11 • • • Thermo-luminescent dosimeters
- 1/115 • • • • Read-out devices [2]
- 1/12 • • Calorimetric dosimeters
- 1/14 • • Electrostatic dosimeters (construction of ionisation chambers H01J 47/02)
- 1/142 • • • Charging devices; Read-out devices [2]
- 1/15 • Instruments in which pulses generated by a radiation detector are integrated, e.g. by a diode pump circuit
- 1/16 • Measuring radiation intensity (G01T 1/29 takes precedence) [2]
- 1/161 • • Applications in the field of nuclear medicine, e.g. in vivo counting [2]
- 1/163 • • • Whole-body counters [2]
- 1/164 • • • Scintigraphy [2]
- 1/166 • • • • involving relative movement between detector and subject [2]
- 1/167 • • Measuring radioactive content of objects, e.g. contamination (whole-body counters G01T 1/163) [2]
- 1/169 • • Exploration, location of contaminated surface areas [2]
- 1/17 • • Circuit arrangements not adapted to a particular type of detector
- 1/172 • • • with coincidence circuit arrangements (G01T 1/178 takes precedence) [2]
- 1/175 • • • Power supply circuits [2]
- 1/178 • • • for measuring specific activity in the presence of other radioactive substances, e.g. natural, in the air or in liquids such as rain-water [2]
- 1/18 • • with counting-tube arrangements, e.g. with Geiger counters (tubes H01J 47/00)
- 1/185 • • with ionisation-chamber arrangements [2]
- 1/20 • • with scintillation detectors
- 1/202 • • • the detector being a crystal
- 1/203 • • • the detector being made of plastics

- 1/204 • • • the detector being a liquid
- 1/205 • • • the detector being a gas
- 1/208 • • • Circuits specially adapted for scintillation detectors, e.g. for the photo-multiplier section [2]
- 1/22 • • with Cerenkov detectors
- 1/24 • • with semiconductor detectors
- 1/26 • • with resistance detectors
- 1/28 • • with secondary-emission detectors
- 1/29 • Measurement performed on radiation beams, e.g. position or section of the beam; Measurement of spatial distribution of radiation [2]
- 1/30 • Measuring half-life of a radioactive substance
- 1/32 • Measuring polarisation of particles
- 1/34 • Measuring cross-section, e.g. absorption cross-section of particles
- 1/36 • Measuring spectral distribution of X-rays or of nuclear radiation
- 1/38 • • Particle discrimination and measurement of relative mass, e.g. by measurement of loss of energy with distance (dE/dx) [2]
- 1/40 • • Stabilisation of spectrometers [2]

**3/00 Measuring neutron radiation** (G01T 5/00 takes precedence) [2]

- 3/02 • by shielding other radiation
- 3/04 • using calorimetric devices
- 3/06 • with scintillation detectors [2]
- 3/08 • with semiconductor detectors [2]

**5/00 Recording of movements or tracks of particles** (spark chambers H01J 47/14); **Processing or analysis of such tracks** [2]

- 5/02 • Processing of tracks; Analysis of tracks
- 5/04 • Cloud chambers, e.g. Wilson chamber
- 5/06 • Bubble chambers
- 5/08 • Scintillation chambers (discharge tubes H01J 40/00, H01J 47/00)
- 5/10 • Plates or blocks in which tracks of nuclear particles are made visible by after-treatment, e.g. using photographic emulsion, using mica
- 5/12 • Circuit arrangements with multi-wire or parallel-plate chambers, e.g. spark chambers (tubes per se H01J 47/00) [2]

**7/00 Details of radiation-measuring instruments**

G01T

- 7/02

- Collecting-means for receiving or storing samples to be investigated
- 7/04

- by filtration
- 7/06

- by electrostatic precipitation (G01T 7/04 takes precedence)
- 7/08

- Means for conveying samples received
- 7/10

- using turntables
- 7/12

- Provision for actuation of an alarm