

## 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.

- |             |  |             |   |
|-------------|--|-------------|---|
| <b>1/00</b> | <b>Measuring X-radiation, gamma radiation, corpuscular radiation, or cosmic radiation</b> (G01T 3/00, G01T 5/00 take precedence) [2]                 | 1/204       | • • • the detector being a liquid   |
| 1/02        | • Dosimeters (G01T 1/15 takes precedence) [2]  | 1/205       | • • • the detector being a gas  |
| 1/04        | • • Chemical dosimeters (G01T 1/06, G01T 1/08 take precedence)   | 1/208       | • • • Circuits specially adapted for scintillation detectors, e.g. for the photo-multiplier section [2]                                   |
| 1/06        | • • Glass dosimeters   | 1/22        | • • with Cerenkov detectors   |
| 1/08        | • • Photographic dosimeters  | 1/24        | • • with semiconductor detectors  |
| 1/10        | • • Luminescent dosimeters   | 1/26        | • • with resistance detectors   |
| 1/105       | • • • Read-out devices (G01T 1/115 takes precedence) [2]   | 1/28        | • • with secondary-emission detectors   |
| 1/11        | • • • Thermo-luminescent dosimeters  | 1/29        | • Measurement performed on radiation beams, e.g. position or section of the beam; Measurement of spatial distribution of radiation [2]    |
| 1/115       | • • • • Read-out devices [2]   | 1/30        | • Measuring half-life of a radioactive substance  |
| 1/12        | • • Calorimetric dosimeters  | 1/32        | • Measuring polarisation of particles   |
| 1/14        | • • Electrostatic dosimeters (construction of ionisation chambers H01J 47/02)  | 1/34        | • Measuring cross-section, e.g. absorption cross-section of particles   |
| 1/142       | • • • Charging devices; Read-out devices [2]   | 1/36        | • Measuring spectral distribution of X-rays or of nuclear radiation   |
| 1/15        | • Instruments in which pulses generated by a radiation detector are integrated, e.g. by a diode pump circuit   | 1/38        | • • Particle discrimination and measurement of relative mass, e.g. by measurement of loss of energy with distance (dE/dx) [2]             |
| 1/16        | • Measuring radiation intensity (G01T 1/29 takes precedence) [2]   | 1/40        | • • Stabilisation of spectrometers [2]  |
| 1/161       | • • Applications in the field of nuclear medicine, e.g. <u>in vivo</u> counting [2]  | <b>3/00</b> | <b>Measuring neutron radiation</b> (G01T 5/00 takes precedence) [2]   |
| 1/163       | • • • Whole-body counters [2]  | 3/02        | • by shielding other radiation  |
| 1/164       | • • • Scintigraphy [2]   | 3/04        | • using calorimetric devices  |
| 1/166       | • • • • involving relative movement between detector and subject [2]   | 3/06        | • with scintillation detectors [2]  |
| 1/167       | • • Measuring radioactive content of objects, e.g. contamination (whole-body counters G01T 1/163) [2]  | 3/08        | • with semiconductor detectors [2]  |
| 1/169       | • • Exploration, location of contaminated surface areas [2]  | <b>5/00</b> | <b>Recording of movements or tracks of particles</b> (spark chambers H01J 47/14); <b>Processing or analysis of such tracks</b> [2]        |
| 1/17        | • • Circuit arrangements not adapted to a particular type of detector  | 5/02        | • Processing of tracks; Analysis of tracks  |
| 1/172       | • • • with coincidence circuit arrangements (G01T 1/178 takes precedence) [2]  | 5/04        | • Cloud chambers, e.g. Wilson chamber   |
| 1/175       | • • • Power supply circuits [2]  | 5/06        | • Bubble chambers   |
| 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] | 5/08        | • Scintillation chambers (discharge tubes H01J 40/00, H01J 47/00)   |
| 1/18        | • • with counting-tube arrangements, e.g. with Geiger counters (tubes 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 |
| 1/185       | • • with ionisation-chamber arrangements [2]   | 5/12        | • Circuit arrangements with multi-wire or parallel-plate chambers, e.g. spark chambers (tubes <u>per se</u> H01J 47/00) [2]               |
| 1/20        | • • with scintillation detectors   | <b>7/00</b> | <b>Details of radiation-measuring instruments</b>   |
| 1/202       | • • • the detector being a crystal   |             |   |
| 1/203       | • • • the detector being made of plastics  |             |   |

## G01T

- |      |  |      |  |
|------|--|------|--|
| 7/02 | • Collecting-means for receiving or storing samples to be investigated | 7/08 | • Means for conveying samples received |
| 7/04 | • • by filtration  | 7/10 | • • using turntables                   |
| 7/06 | • • by electrostatic precipitation (G01T 7/04 takes precedence)        | 7/12 | • Provision for actuation of an alarm  |