

SECTION H — ELECTRICITY

H05 ELECTRIC TECHNIQUES NOT OTHERWISE PROVIDED FOR

H05G X-RAY TECHNIQUE (apparatus for radiation diagnosis A61B 6/00; X-ray therapy A61N; testing by X-rays G01N; apparatus for X-ray photography G03B; filters, conversion screens, microscopes G21K; X-ray tubes H01J 35/00; TV systems having X-ray input H04N 5/321)

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| 1/00 | X-ray apparatus involving X-ray tubes; Circuits therefor | 1/44 | • • • • • in which the switching instant is determined by measuring the amount of radiation directly |
| 1/02 | • Constructional details | 1/46 | • • • • Combined control of different quantities, e.g. exposure time as well as voltage or current |
| 1/04 | • • Mounting the X-ray tube within a closed housing | 1/48 | • • • • Compensating the voltage drop occurring at the instant of switching-on of the apparatus (regulating supply without reference to operating characteristics of the apparatus G05F) |
| 1/06 | • • • X-ray tube and at least part of the power supply apparatus being mounted within the same housing | 1/50 | • • • • Passing the tube current only during a restricted portion of the voltage waveform |
| 1/08 | • Electrical details | 1/52 | • • • • Target size or shape; Direction of electron beam, e.g. in tubes with one anode and more than one cathode |
| 1/10 | • • Power supply arrangements for feeding the X-ray tube | 1/54 | • • • Protecting (overload protection combined with control H05G 1/46) |
| 1/12 | • • • with dc or rectified single-phase ac | 1/56 | • • Switching-on; Switching-off |
| 1/14 | • • • with single-phase low-frequency ac | 1/58 | • • Switching arrangements for changing-over from one mode of operation to another, e.g. from radioscopy to radiography, from radioscopy to irradiation |
| 1/16 | • • • • Reducing the peak-inverse voltage | 1/60 | • • Circuit arrangements for obtaining a series of X-ray photographs or for X-ray cinematography |
| 1/18 | • • • with polyphase ac of low frequency | 1/61 | • • • for obtaining stereoscopic photographs [5] |
| 1/20 | • • • with high-frequency ac; with pulse trains | 1/62 | • • Circuit arrangements for obtaining X-ray photography at predetermined instants in the movement of an object, e.g. X-ray stroboscopy |
| 1/22 | • • • with single pulses | 1/64 | • • Circuit arrangements for X-ray apparatus incorporating electronic image converters, e.g. image intensifiers [5] |
| 1/24 | • • • • Obtaining pulses by using energy storage devices (pulse generators H03K) | 1/66 | • • Circuit arrangements for X-ray tubes with target movable relatively to the anode |
| 1/26 | • • Measuring, controlling, protecting (measuring electric values G01R; measuring X-ray intensity G01T) | 1/68 | • • Circuit arrangements for Lilienfeld tubes; Circuit arrangements for gas-filled X-ray tubes |
| 1/28 | • • • Measuring or recording actual exposure time; Counting number of exposures; Measuring required exposure time | 1/70 | • • Circuit arrangements for X-ray tubes with more than one anode; Circuit arrangements for apparatus comprising more than one X-ray tube |
| 1/30 | • • • Controlling | | |
| 1/32 | • • • • Supply voltage of the X-ray apparatus or tube (regulating supply without reference to operating characteristics of the apparatus G05F) | | |
| 1/34 | • • • • Anode current, heater current, heater voltage of X-ray tube (regulating supply without reference to operating characteristics of the apparatus G05F) | | |
| 1/36 | • • • • Temperature of anode; Brightness of image | | |
| 1/38 | • • • • Exposure time | | |
| 1/40 | • • • • • using adjustable time switch | | |
| 1/42 | • • • • • using arrangements for switching when a predetermined dose of radiation has been applied, e.g. in which the switching instant is determined by measuring the electrical energy supplied to the tube | | |
| | | 2/00 | Apparatus or processes specially adapted for producing X-rays, not involving X-ray tubes, e.g. involving generation of a plasma (X-ray lasers H01S 4/00; plasma technique in general H05H) [5] |