

ECLA**EUROPEAN CLASSIFICATION****G21H**

**OBTAINING ENERGY FROM RADIOACTIVE SOURCES;
APPLICATIONS OF RADIATION FROM RADIOACTIVE SOURCES;
UTILISING COSMIC RADIATION** (measurement of nuclear or X-radiation [G01T](#);
fusion reactors [G21B](#); nuclear reactors [G21C](#); semiconductor devices sensitive to
electro-magnetic or corpuscular radiation [H01L31/00](#))

G21H1/00

**Arrangements for obtaining electrical energy from radioactive sources, e.g. from
radioactive isotopes, [N: nuclear or atomic batteries]**

G21H1/02

- Cells charged directly by beta radiation

G21H1/04

- Cells using secondary emission induced by alpha radiation, beta radiation, or gamma radiation (discharge tubes [H01J40/00](#))

G21H1/06

- Cells wherein radiation is applied to the junction of different semiconductor materials

G21H1/08

- Cells in which radiation ionises a gas in the presence of a junction of two dissimilar metals, i.e. contact potential difference cells (discharge tubes [H01J](#))

G21H1/10

- Cells in which radiation [N: of disintegration heat] heats a thermoelectric junction or a thermionic converter (discharge tubes functioning as thermionic generators [H01J45/00](#); thermo electric devices comprising a junction of dissimilar materials [H01L35/00](#)) [N: Devices where heating occurs from fission reactions [G21C3/04](#)]

G21H1/10B

- [N: Cells provided with thermo-electric generators]

G21H1/10C

- [N: Cells provided with thermionic generators]

G21H1/12

- Cells using conversion of the radiation into light combined with subsequent photoelectric conversion into electric energy

G21H3/00

**Arrangements for direct conversion of radiation energy from radioactive sources
into forms of energy other than electric energy, e.g. [N: into] light [N: or mechanic
energy] (lasers [H01S3/00](#); [N: gamma masers [H01S4/00](#)])**

G21H3/02

- in which material is excited to luminesce by the radiation ([N: luminescent substances containing radioactive material [C09C1/00](#)]; lamps in which a gas filling or screen or coating is excited to luminesce by radioactive material structurally associated with the lamp [H01J65/00](#))

G21H5/00

Applications of radiation from radioactive sources or arrangements therefor
(producing mutation in plants [A01H1/06](#); preservation of dairy products [A23C](#);
preservation of foodstuffs [A23L3/26](#); for therapeutic purposes [A61N5/10](#); in chemical,
physical or physicochemical processes in general [B01J19/08](#); in electrostatic separation
[B03C3/38](#); for after-treatment of coatings applied as liquids or other fluent materials
[B05D3/06](#); for action between electric vehicles and tracked apparatus [B61L1/10](#),
[B61L3/06](#); introducing isotopes into organic compounds [C07B59/00](#); for preparation of
organic chemical compounds [C07](#), [C08](#), e.g. [C08F2/46](#); for treating macromolecular
substances or articles made therefrom [B29C71/04](#), [C08J3/28](#), [C08J7/18](#); for cracking of
hydrocarbon oils [C10G15/00](#), [C10G32/04](#); for reforming naphtha [C10G35/16](#);
preservation or ageing of products obtained from fermentation processes [C12H1/06](#),
[C12H1/16](#); for bleaching fibres [D06L3/04](#); measuring [G01](#); irradiation devices, gamma- or

X-ray microscopes G21K; in discharge tubes H01J; apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere, [H01T23/00](#); for carrying-off electrostatic charges [H05F3/06](#))

G21H5/02

- as tracers [N: (medicinal preparations containing radioactive substances [A61K43/00](#); investigating or analysing biological material [G01N33/48](#))]

G21H7/00

Use of effects of cosmic radiation