ECLA EUROPEAN CLASSIFICATION

G21K TECHNIQUES FOR HANDLING PARTICLES OR IONISING RADIATION NOT OTHERWISE PROVIDED FOR; IRRADIATION DEVICES; GAMMA RAY OR X-RAY MICROSCOPES

[N: **WARNING**
[N1110] The following IPC group is not used in the internal ECLA classification scheme. Subject matter covered this group is classified in the following ECLA group:
- G21K3/00 covered by G21K1/10
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[N: **Notes**
[N1110] In this subclass, the following term is used with the meaning indicated:

- "particle" means a molecular, atomic or subatomic particle

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G21K1/00 **Arrangements for handling particles or ionizing radiation, e.g. focusing or moderating (production or acceleration of neutrons, electrically-charged particles, neutral molecular beams or neutral atomic beams H05H 3/00-H05H 15/00) [M1110]**

G21K1/00B . [N: Manipulation of charged particles by using radiation pressure, e.g. optical levitation (acceleration of charged particles H05H5/00, H05H7/00, H05H9/00, H05H11/00, H05H13/00)] [M1110]

G21K1/00N . [N: Manipulation of neutral particles by using radiation pressure, e.g. optical levitation (production or acceleration of neutral particles H05H3/00)] [N0302] [M1110]

G21K1/02 . using diaphragms, collimators

G21K1/02B . . [N: using multiple collimators, e.g. Bucky screens; other devices for eliminating undesired or dispersed radiation]

G21K1/04 . . using variable diaphragms, shutters, choppers

G21K1/04C . . . [N: changing time structure of beams by mechanical means, e.g. choppers, spinning filter wheels] [N1112]

G21K1/04M . . . [N: varying the contour of the field, e.g. multileaf collimators] [N1112]

G21K1/06 . using diffraction, refraction or reflection, e.g. monochromators (G21K1/10, G21K7/00 take precedence)

G21K1/06B . . [N: Devices having a multilayer structure]

G21K1/06R . . [N: using refraction, e.g. Tomie lenses] [N1112]

G21K1/06S . . [N: using surface reflection, e.g. grazing incidence mirrors, gratings (multilayer mirrors G21K1/06B; crystal optics G21K1/06)] [N1112]

G21K1/08 . Deviation, concentration or focusing of the beam by electric or magnetic means (electron-optical arrangements in electric discharge tubes H01J29/46; [N: details, e.g. electric or magnetic deviating means for direct voltage accelerators or in accelerators using single pulses H05H5/02; arrangements for injecting particles into orbits H05H7/08; arrangements for ejecting particles from orbits H05H7/10])

G21K1/087 . . by electrical means

G21K1/093 . . by magnetic means

G21K1/10 . Scattering devices; Absorbing devices; Ionising radiation filters [M1110]

G21K1/12 . . Resonant absorbers or driving arrangements therefor, e.g. for Moessbauer-effect devices [N: (motors with reciprocating, oscillating or vibrating magnet, armature or coil system in general H02K33/00)]

G21K1/14 . using charge exchange devices, e.g. for neutralising or changing the sign of the electrical charges of beams (producing or accelerating neutral particle beams H05H3/00)

G21K1/16 . using polarising devices, e.g. for obtaining a polarised beam [N: (ion sources, ion guns H01J27/02; polarised targets for producing nuclear reactions H05H6/00B)]

G21K4/00 **Conversion screens for the conversion of the spatial distribution of X-rays or particle radiation into visible images, e.g. fluoroscopic screens** (photographic processes using X-ray intensifiers G03C5/17; discharge tubes comprising luminescent screens H01J1/62; cathode ray tubes for X-ray conversion with optical output H01J31/50)

G21K5/00 **Irradiation devices** (discharge tubes for irradiating H01J37/00)

G21K5/02 . having no beam-forming means

G21K5/04 . with beam-forming means

G21K5/08 . Holder for targets or for other objects to be irradiated

G21K5/10 . with provision for relative movement of beam source and object to be irradiated

G21K7/00 **Gamma- or X-ray microscopes**