

CPC COOPERATIVE PATENT CLASSIFICATION

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

NOTE

In this subclass, the following term is used with the meaning indicated:
"particle" means a molecular, atomic or subatomic particle

WARNING

The following IPC group is not used in the CPC scheme. Subject matter covered this group is classified in the following CPC group:

G21K 3/00

covered by

[G21K 1/10](#)

1/00	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)	1/12	. . Resonant absorbers or driving arrangements therefor, e.g. for Moessbauer-effect devices {motors with reciprocating, oscillating or vibrating magnet, armature or coil system in general H02K 33/00 }
1/003	. {Manipulation of charged particles by using radiation pressure, e.g. optical levitation (acceleration of charged particles H05H 5/00 , H05H 7/00 , H05H 9/00 , H05H 11/00 , H05H 13/00)}	1/14	. using charge exchange devices, e.g. for neutralising or changing the sign of the electrical charges of beams (producing or accelerating neutral particle beams H05H 3/00)
1/006	. {Manipulation of neutral particles by using radiation pressure, e.g. optical levitation (production or acceleration of neutral particles H05H 3/00)}	1/16	. using polarising devices, e.g. for obtaining a polarised beam {ion sources, ion guns H01J 27/02 ; polarised targets for producing nuclear reactions H05H 6/005 }
1/02	. using diaphragms, collimators	4/00	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 G03C 5/17 ; discharge tubes comprising luminescent screens H01J 1/62 ; cathode ray tubes for X-ray conversion with optical output H01J 31/50)
1/025	. . {using multiple collimators, e.g. Bucky screens; other devices for eliminating undesired or dispersed radiation}	2004/02	. {characterised by the external panel structure}
1/04	. . using variable diaphragms, shutters, choppers	2004/04	. {with an intermediate layer}
1/043	. . . {changing time structure of beams by mechanical means, e.g. choppers, spinning filter wheels}	2004/06	. {with a phosphor layer}
1/046	. . . {varying the contour of the field, e.g. multileaf collimators}	2004/08	. {with a binder in the phosphor layer}
1/06	. using diffraction, refraction or reflection, e.g. monochromators (G21K 1/10 , G21K 7/00 take precedence)	2004/10	. {with a protective film}
1/062	. . {Devices having a multilayer structure}	2004/12	. {with a support}
1/065	. . {using refraction, e.g. Tomie lenses}	5/00	Irradiation devices (discharge tubes for irradiating H01J 37/00)
1/067	. . {using surface reflection, e.g. grazing incidence mirrors, gratings (multilayer mirrors G21K 1/062 ; crystal optics G21K 1/06)}	5/02	. having no beam-forming means
1/08	. Deviation, concentration or focusing of the beam by electric or magnetic means (electron-optical arrangements in electric discharge tubes H01J 29/46 ; {details, e.g. electric or magnetic deviating means for direct voltage accelerators or in accelerators using single pulses H05H 5/02 ; arrangements for injecting particles into orbits H05H 7/08 ; arrangements for ejecting particles from orbits H05H 7/10 })	5/04	. with beam-forming means
1/087	. . by electrical means	5/08	. Holder for targets or for other objects to be irradiated
1/093	. . by magnetic means	5/10	. with provision for relative movement of beam source and object to be irradiated
1/10	. Scattering devices; Absorbing devices; Ionising radiation filters	7/00	Gamma- or X-ray microscopes
		2201/00	Arrangements for handling radiation or particles
		2201/06	. using diffractive, refractive or reflecting elements
		2201/061	. . characterised by a multilayer structure
		2201/062	. . the element being a crystal
		2201/064	. . having a curved surface
		2201/065	. . provided with cooling means
		2201/067	. . Construction details
		2201/068	. . specially adapted for particle beams

2207/00 Particular details of imaging devices or methods using ionizing electromagnetic radiation such as X-rays or gamma rays

2207/005 . Methods and devices obtaining contrast from non-absorbing interaction of the radiation with matter, e.g. phase contrast