

CPC**COOPERATIVE PATENT CLASSIFICATION****G01J**

MEASUREMENT OF INTENSITY, VELOCITY, SPECTRAL CONTENT, POLARISATION, PHASE OR PULSE CHARACTERISTICS OF INFRA-RED, VISIBLE OR ULTRA-VIOLET LIGHT; COLORIMETRY; RADIATION PYROMETRY (light sources [F21](#), [H01J](#), [H01K](#), [H05B](#); investigating properties of materials by optical means [G01N](#))

NOTE

This subclass covers the detection of the presence or absence of infra-red, visible, or ultra-violet light, not otherwise provided for.

Attention is drawn to the Notes following the title of class [G01](#).

G01J 1/00

Photometry, e.g. photographic exposure meter (spectrophotometry [G01J 3/00](#); specially adapted for radiation pyrometry [G01J 5/00](#)) { exposure meters built in cameras [G03B 17/06](#) }

- G01J 1/02 . Details
- G01J 1/0204 .. { Compact construction }
- G01J 1/0209 ... { Monolithic }
- G01J 1/0214 .. { Constructional arrangements for removing stray light }
- G01J 1/0219 .. { Electrical interface; User interface }
- G01J 1/0223 .. { Sample holders for photometry }
- G01J 1/0228 .. { Control of working procedures; Failure detection; Spectral bandwidth calculation }
- G01J 1/0233 .. { Handheld }
- G01J 1/0238 .. { making use of sensor-related data, e.g. for identification of sensor or optical parts }
- G01J 1/0242 .. { Control or determination of height or angle information of sensors or receivers; Goniophotometry }
- G01J 1/0247 .. { using a charging unit }
- G01J 1/0252 .. { Constructional arrangements for compensating for fluctuations caused by e.g. temperature, or using cooling or temperature stabilization of parts of the device; Controlling the atmosphere inside a photometer; Purge systems, cleaning devices (protection against electromagnetic interferences [G01J 2001/0276](#)) }
- G01J 2001/0257 .. { portable }
- G01J 2001/0261 ... { Pocket size; Card size }
- G01J 1/0266 .. { Field-of-view determination; Aiming or pointing of a photometer; Adjusting alignment; Encoding angular position; Size of the measurement area; Position tracking; Photodetection involving different fields of view for a single detector }
- G01J 1/0271 .. { Housings; Attachments or accessories for photometers }
- G01J 2001/0276 .. { Protection }
- G01J 2001/028 ... { against liquid }

G01J 2001/0285	...	{ against laser damage }
G01J 1/029	..	{ Multi-channel photometry }
G01J 1/0295	..	{ Constructional arrangements for removing other types of optical noise or for performing calibration }
G01J 1/04	..	Optical or mechanical part { supplementary adjustable parts }
G01J 1/0403	...	{ Mechanical elements; Supports for optical elements; Scanning arrangements }
G01J 1/0407	...	{ Optical elements not provided otherwise, e.g. manifolds, windows, holograms, gratings }
G01J 1/0411	....	{ using focussing or collimating elements, i.e. lenses or mirrors; Aberration correction }
G01J 1/0414	....	{ using plane or convex mirrors, parallel phase plates, or plane beam-splitters }
G01J 1/0418	....	{ using attenuators }
G01J 1/0422	....	{ using light concentrators, collectors or condensers }
G01J 1/0425	....	{ using optical fibers }
G01J 1/0429	....	{ using polarisation elements }
G01J 1/0433	....	{ using notch filters }
G01J 1/0437	....	{ using masks, aperture plates, spatial light modulators, spatial filters, e.g. reflective filters }
G01J 1/044	....	{ using shutters }
G01J 1/0444	....	{ using means for replacing an element by another, e.g. for replacing a filter or grating }
G01J 1/0448	....	{ Adjustable, e.g. focussing }
G01J 1/0451	....	{ using means for illuminating a slit efficiently, e.g. entrance slit of a photometer or entrance face of fiber }
G01J 1/0455	....	{ having a throughhole enabling the optical element to fulfil an additional optical function, e.g. a mirror or grating having a through-hole for a light collecting or light injecting optical fibre }
G01J 1/0459	....	{ using an optical amplifier of light or coatings to improve optical coupling }
G01J 1/0462	....	{ Slit arrangements }
G01J 1/0466	....	{ with a sighting port }
G01J 1/047	....	{ using extension/expansion of solids or fluids, change of resonant frequency or extinction effect }
G01J 1/0474	....	{ Diffusers (cavities G01J 2001/0481) }
G01J 1/0477	....	{ Prisms, wedges }
G01J 2001/0481	...	{ Preset integrating sphere or cavity }
G01J 2001/0485	...	{ Cosinus correcting or purposely modifying the angular response of a light sensor }
G01J 1/0488	...	{ with spectral filtering }
G01J 1/0492	....	{ using at least two different filters }
G01J 2001/0496	....	{ using fiber Bragg gratings }
G01J 1/06	...	Restricting the angle of incident light

G01J 2001/061	....	{ Baffles }
G01J 2001/062	....	{ by fibre-optic packed bundle }
G01J 2001/063	....	{ with selectable field of view }
G01J 2001/065	.....	{ by changing elements }
G01J 2001/066	.....	{ with an aiming optical device }
G01J 2001/067	....	{ for angle scan }
G01J 2001/068	.....	{ by diaphragm or the like }
G01J 1/08	..	Arrangements of light sources specially adapted for photometry { standard sources, also using luminescent or radioactive material }
G01J 2001/083	...	{ Testing response of detector }
G01J 2001/086	...	{ Calibrating drift correction }
G01J 1/10	.	by comparison with reference light or electric value { provisionally void }
G01J 1/12	..	using wholly visual means (G01J 1/20 takes precedence)
G01J 1/122	...	{ Visual exposure meters for determining the exposure time in photographic recording or reproducing }
G01J 1/124	....	{ based on the comparison of the intensity of measured light with a comparison source or comparison illuminated surface }
G01J 1/126	.....	{ for enlarging apparatus }
G01J 1/128	.....	{ for copy- or printing apparatus }
G01J 1/14	...	using comparison with a surface of graded brightness, { e.g. for view taking; for analytical applications G01N 21/293 }
G01J 1/16	..	using electric radiation detectors (G01J 1/20 takes precedence)
G01J 2001/1605	...	{ Null method }
G01J 2001/161	...	{ Ratio method, i.e. I_m/I_r }
G01J 2001/1615	....	{ Computing a difference/sum ratio, i.e. $(I_m - I_r)/(I_m + I_r)$ }
G01J 2001/1621	....	{ Comparing a duty ratio of pulses }
G01J 1/1626	...	{ Arrangements with two photodetectors, the signals of which are compared }
G01J 2001/1631	....	{ Bridge circuit }
G01J 2001/1636	....	{ one detector directly monitoring the source, e.g. also impulse time controlling }
G01J 2001/1642	.....	{ and acting on the detecting circuit }
G01J 2001/1647	....	{ one signal maintained constant }
G01J 2001/1652	....	{ one detector being transparent before the other one }
G01J 2001/1657	....	{ one signal being spectrally modified, e.g. for UV }
G01J 2001/1663	....	{ two detectors of different sensitivity }
G01J 2001/1668	...	{ the measuring signal itself varying in time, e.g. periodic, for example blood pulsation }
G01J 2001/1673	...	{ using a reference sample }
G01J 2001/1678	...	{ Comparing time separated signals, i.e. chopped }
G01J 2001/1684	....	{ and selecting also a DC level from the signal }
G01J 2001/1689	....	{ one separated signal being processed differently }

G01J 2001/1694	....	{ with a signal from on/off switched light source }
G01J 1/18	...	using comparison with a reference electric value
G01J 2001/182	....	{ with SH sample and hold circuits }
G01J 2001/184	.....	{ on a succession of signals }
G01J 2001/186	....	{ Comparison or correction from an electric source within the processing circuit }
G01J 2001/188	.....	{ on pulse train }
G01J 1/20	..	intensity of the measured or reference value being varied to equalise their effects at the detectors, e.g. by varying incidence angle
G01J 1/22	...	using a variable element in the light-path, e.g. filter, polarising means (G01J 1/34 takes precedence)
G01J 1/24	....	using electric radiation detectors
G01J 2001/242	.....	{ Filter wheel, i.e. absorption filter series graduated }
G01J 2001/245	.....	{ with two or more separate attenuated steps }
G01J 2001/247	.....	{ of spectral wedge type }
G01J 1/26	.....	adapted for automatic variation of the measured or reference value (regulation of light intensity G05D 25/00)
G01J 1/28	...	using variation of intensity or distance of source (G01J 1/34 takes precedence)
G01J 1/30	....	using electric radiation detectors
G01J 1/32	.....	adapted for automatic variation of the measured or reference value (regulation of light intensity G05D 25/00)
G01J 1/34	...	using separate light paths used alternately or sequentially, e.g. flicker
G01J 1/36	....	using electric radiation detectors
G01J 2001/363	.....	{ Chopper stabilisation }
G01J 2001/366	.....	{ Balancing two paths }
G01J 1/38	.	using wholly visual means (G01J 1/10 takes precedence)
G01J 1/40	..	using limit or visibility or extinction effect
G01J 1/42	.	using electric radiation detectors (optical or mechanical part G01J 1/04 ; by comparison with a reference light or electric value G01J 1/10)
G01J 1/4204	..	{ with determination of ambient light (solar light G01J 2001/4266)}
G01J 1/4209	..	{ Photoelectric exposure meters for determining the exposure time in recording or reproducing }
G01J 1/4214	...	{ specially adapted for view-taking apparatus }
G01J 1/4219	...	{ specially adapted for enlargers }
G01J 1/4223	...	{ specially adapted for copy - or printing apparatus }
G01J 1/4228	..	{ arrangements with two or more detectors, e.g. for sensitivity compensation }
G01J 2001/4233	...	{ with selection of detector }
G01J 2001/4238	..	{ Pulsed light }
G01J 2001/4242	..	{ Modulated light, e.g. for synchronizing source and detector circuit }
G01J 2001/4247	..	{ for testing lamps or other light sources }
G01J 2001/4252	...	{ for testing LED`s }

- G01J 1/4257 .. { applied to monitoring the characteristics of a beam, e.g. laser beam, headlamp beam (monitoring arrangements for lasers in general [H01S 3/0014](#)) }
- G01J 2001/4261 ... { Scan through beam in order to obtain a cross-sectional profile of the beam }
- G01J 2001/4266 .. { for measuring solar light }
- G01J 2001/4271 ... { Pyrrheliometer }
- G01J 2001/4276 ... { Solar energy integrator over time }
- G01J 2001/428 .. { for sunlight scattered by atmosphere }
- G01J 2001/4285 ... { Pyranometer, i.e. integrating over space }
- G01J 1/429 .. { applied to measurement of ultraviolet light (using counting tubes [G01T](#)) }
- G01J 2001/4295 .. { using a physical effect not covered by other subgroups of [G01J 1/42](#) }
- G01J 1/44 .. Electric circuits { for command of an exposure part [G03B 7/02](#) }
- G01J 2001/4406 ... { Plural ranges in circuit, e.g. switchable ranges; Adjusting sensitivity selecting gain values }
- G01J 2001/4413 ... { Type }
- G01J 2001/442 { Single-photon detection or photon counting }
- G01J 2001/4426 { with intensity to frequency or voltage to frequency conversion [IFC or VFC] }
- G01J 2001/4433 { Peak sensing }
- G01J 2001/444 ... { Compensating; Calibrating, e.g. dark current, temperature drift, noise reduction or baseline correction; Adjusting }
- G01J 2001/4446 ... { Type of detector }
- G01J 2001/4453 { PMT }
- G01J 2001/446 { Photodiode }
- G01J 2001/4466 { Avalanche }
- G01J 2001/4473 { Phototransistor }
- G01J 2001/448 { Array (CCD) }
- G01J 2001/4486 { Streak tube }
- G01J 2001/4493 { with image intensifier tube (IIT) }
- G01J 1/46 ... using a capacitor
- G01J 1/48 . using chemical effects
- G01J 1/50 .. using change in colour of an indicator, e.g. actinometer
- G01J 1/52 .. using photographic effects
- G01J 1/54 .. by observing photo-reactions between gases
- G01J 1/56 . using radiation pressure or radiometer effect
- G01J 1/58 . using luminescence generated by light
- G01J 1/60 . by measuring the pupil of the eye

G01J 3/00 Spectrometry; Spectrophotometry; Monochromators; Measuring colour

G01J 2003/003	. { Comparing spectra of two light sources }
G01J 2003/006	. { Fundamentals or review articles }
G01J 3/02	. Details
G01J 3/0202	.. { Mechanical elements; Supports for optical elements }
G01J 3/0205	.. { Optical elements not provided otherwise, e. g. optical manifolds, diffusers, windows }
G01J 3/0208	... { using focussing or collimating elements, e.g. lenses or mirrors; performing aberration correction }
G01J 3/021	... { using plane or convex mirrors, parallel phase plates, or particular reflectors }
G01J 3/0213	... { using attenuators }
G01J 3/0216	... { using light concentrators or collectors or condensers }
G01J 3/0218	... { using optical fibers }
G01J 3/0221	.... { the fibers defining an entry slit }
G01J 3/0224	... { using polarising or depolarising elements }
G01J 3/0227	... { using notch filters }
G01J 3/0229	... { using masks, aperture plates, spatial light modulators or spatial filters, e.g. reflective filters }
G01J 3/0232	... { using shutters }
G01J 3/0235	... { using means for replacing an element by another, for replacing a filter or a grating }
G01J 3/0237	... { Adjustable, e.g. focussing }
G01J 3/024	... { using means for illuminating a slit efficiently (e.g. entrance slit of a spectrometer or entrance face of fiber)}
G01J 3/0243	... { having a through-hole enabling the optical element to fulfil an additional optical function, e.g. a mirror or grating having a throughhole for a light collecting or light injecting optical fiber }
G01J 3/0245	... { using an optical amplifier of light, e.g. doped fiber }
G01J 3/0248	... { using a sighting port, e.g. camera or human eye }
G01J 3/0251	... { Colorimeters making use of an integrating sphere }
G01J 3/0254	... { Spectrometers, other than colorimeters, making use of an integrating sphere }
G01J 3/0256	.. { Compact construction }
G01J 3/0259	... { Monolithic }
G01J 3/0262	.. { Constructional arrangements for removing stray light }
G01J 3/0264	.. { Electrical interface; User interface }
G01J 3/0267	.. { Sample holders for colorimetry }
G01J 3/027	.. { Control of working procedures of a spectrometer; Failure detection; Bandwidth calculation }
G01J 3/0272	.. { Handheld }
G01J 3/0275	.. { making use of sensor-related data, e. g. for identification of sensor parts or optical elements }
G01J 3/0278	.. { Control or determination of height or angle information for sensors or receivers }

G01J 2003/0281	..	{ slitless }
G01J 3/0283	..	{ using a charging unit }
G01J 3/0286	..	{ Constructional arrangements for compensating for fluctuations caused by temperature, humidity or pressure, or using cooling or temperature stabilization of parts of the device; Controlling the atmosphere inside a spectrometer, e.g. vacuum }
G01J 3/0289	..	{ Field-of-view determination; Aiming or pointing of a spectrometer; Adjusting alignment; Encoding angular position; Size of measurement area; Position tracking }
G01J 3/0291	..	{ Housings; Spectrometer accessories; Spatial arrangement of elements, e.g. folded path arrangements }
G01J 3/0294	..	{ Multi-channel spectroscopy }
G01J 3/0297	..	{ Constructional arrangements for removing other types of optical noise or for performing calibration }
G01J 3/04	..	Slit arrangements { slit adjustment }
G01J 2003/042	...	{ Slit wheel }
G01J 2003/045	...	{ Sequential slits; Multiple slits }
G01J 2003/047	...	{ Configuration of two or more entry or exit slits for predetermined delta-lambda }
G01J 3/06	..	Scanning arrangements { arrangements for order-selection }
G01J 2003/061	...	{ Mechanisms, e.g. sine bar }
G01J 2003/062	...	{ motor-driven }
G01J 2003/063	....	{ Step motor }
G01J 2003/064	...	{ Use of other elements for scan, e.g. mirror, fixed grating }
G01J 2003/065	....	{ Use of fibre scan for spectral scan }
G01J 2003/066	...	{ Microprocessor control of functions, e.g. slit, scan, bandwidth during scan }
G01J 2003/067	...	{ Use of plane parallel plate, e.g. small scan, wobble }
G01J 2003/068	...	{ tuned to preselected wavelengths }
G01J 2003/069	...	{ Complex motion, e.g. rotation of grating and correcting translation }
G01J 3/08	..	Beam switching arrangements
G01J 3/10	..	Arrangements of light sources specially adapted for spectrometry or colorimetry
G01J 2003/102	...	{ Plural sources }
G01J 2003/104	....	{ Monochromatic plural sources }
G01J 2003/106	....	{ the two sources being alternating or selectable, e.g. in two ranges or line:continuum }
G01J 3/108	...	{ for measurement in the infra-red range }
G01J 3/12	.	Generating the spectrum; Monochromators
G01J 2003/1204	..	{ Grating and filter }
G01J 2003/1208	..	{ Prism and grating }
G01J 2003/1213	..	{ Filters in general, e.g. dichroic, band }
G01J 2003/1217	...	{ Indexed discrete filters or choppers }
G01J 2003/1221	...	{ Mounting; Adjustment }

G01J 2003/1226	..	{ Interference filters }
G01J 2003/123	...	{ Indexed discrete filters }
G01J 2003/1234	...	{ Continuously variable IF (CVIF); Wedge type }
G01J 2003/1239	...	{ and separate detectors }
G01J 2003/1243	...	{ Pivoting IF or other position variation }
G01J 2003/1247	...	{ Tuning }
G01J 2003/1252	...	{ Using "resonance cell", e.g. Na vapor }
G01J 3/1256	..	{ using acousto-optic tunable filter; (acousto-optic elements or systems G02F 1/11 , G02F 1/33) }
G01J 2003/126	..	{ Focal isolation type }
G01J 2003/1265	..	{ the wavelengths being separated in time, e.g. through optical fibre array }
G01J 2003/1269	..	{ Electrooptic filter }
G01J 2003/1273	..	{ Order selection }
G01J 2003/1278	..	{ Mask with spectral selection }
G01J 2003/1282	..	{ Spectrum tailoring }
G01J 2003/1286	..	{ Polychromator in general }
G01J 2003/1291	..	{ polarised, birefringent }
G01J 2003/1295	..	{ Plural entry slits, e.g. for different incidences }
G01J 3/14	..	using refracting elements, e.g. prisms (G01J 3/18 , G01J 3/26 take precedence) { prisms per se G02B 5/04 }
G01J 2003/145	...	{ Prism systems for straight view }
G01J 3/16	...	with autocollimation
G01J 3/18	..	using diffraction elements, e.g. grating (gratings per se G02B)
G01J 3/1804	...	{ Plane gratings }
G01J 3/1809	...	{ Echelle gratings }
G01J 2003/1814	...	{ Double monochromator }
G01J 2003/1819	....	{ Double pass monochromator }
G01J 2003/1823	....	{ subtractive }
G01J 2003/1828	...	{ with order sorter or prefilter }
G01J 3/1833	...	{ Grazing incidence }
G01J 3/1838	...	{ Holographic gratings }
G01J 2003/1842	...	{ Types of grating }
G01J 2003/1847	....	{ Variable spacing }
G01J 2003/1852	....	{ Cylindric surface }
G01J 2003/1857	....	{ Toroid surface }
G01J 2003/1861	....	{ Transmission gratings }
G01J 2003/1866	...	{ Monochromator for three or more wavelengths }
G01J 2003/1871	....	{ Duochromator }
G01J 2003/1876	....	{ Polychromator }
G01J 2003/188	...	{ Constant deviation }

G01J 2003/1885	...	{ Holder for interchangeable gratings, e.g. at different ranges of wavelengths }
G01J 3/189	...	{ using at least one grating in an off-plane configuration }
G01J 3/1895	...	{ using fiber Bragg gratings or gratings integrated in a waveguide }
G01J 3/20	...	Rowland circle spectrometers
G01J 3/22	...	Littrow mirror spectrometers

WARNING

material provisionally in [G01J 3/18](#)

G01J 3/24	...	using gratings profiled to favour a specific order
G01J 3/26	..	using multiple reflection, e.g. Fabry-Perot interferometer, variable interference filters
G01J 2003/262	...	{ Double pass; Multiple pass }
G01J 2003/265	...	{ Read out, e.g. polychromator }
G01J 2003/267	...	{ of the SISAM type }
G01J 3/28	.	Investigating the spectrum (using colour filters G01J 3/51)
G01J 3/2803	..	{ using photoelectric array detector }
G01J 2003/2806	...	{ Array and filter array }
G01J 2003/2809	....	{ Array and correcting filter }
G01J 2003/2813	...	{ 2D-array }
G01J 2003/2816	...	{ Semiconductor laminate layer }
G01J 2003/282	...	{ Modified CCD or like }
G01J 3/2823	..	{ Imaging spectrometer }
G01J 2003/2826	...	{ Multispectral imaging, e.g. filter imaging }
G01J 2003/283	..	{ computer-interfaced }
G01J 2003/2833	...	{ and memorised spectra collection }
G01J 2003/2836	...	{ Programming unit, i.e. source and data processing }
G01J 2003/284	...	{ Spectral construction }
G01J 2003/2843	...	{ Processing for eliminating interfering spectra }
G01J 3/2846	..	{ using modulation grid; Grid spectrometers }
G01J 2003/285	...	{ Hadamard transformation }
G01J 2003/2853	..	{ Averaging successive scans or readings }
G01J 2003/2856	...	{ and calculation of standard deviation }
G01J 2003/2859	..	{ Peak detecting in spectrum }
G01J 2003/2863	...	{ and calculating peak area }
G01J 2003/2866	..	{ Markers; Calibrating of scan }
G01J 2003/2869	...	{ Background correcting }
G01J 2003/2873	...	{ Storing reference spectrum }
G01J 2003/2876	...	{ Correcting linearity of signal }
G01J 2003/2879	...	{ Calibrating scan, e.g. Fabry Perot interferometer }

G01J 2003/2883	...	{ Correcting overlapping }
G01J 2003/2886	..	{ Investigating periodic spectrum }
G01J 3/2889	..	{ Rapid scan spectrometers; Time resolved spectrometry }
G01J 2003/2893	...	{ with rotating grating }
G01J 2003/2896	..	{ Vidicon, image intensifier tube }
G01J 3/30	..	Measuring the intensity of spectral line directly on the spectrum itself (G01J 3/42 , G01J 3/44 take precedence)
G01J 3/32	...	Investigating bands of a spectrum in sequence by a single detector
G01J 2003/323	....	{ Comparing line:background }
G01J 2003/326	....	{ Scanning mask, plate, chopper, e.g. small spectrum interval }
G01J 3/36	...	Investigating two or more bands of a spectrum by separate detectors
G01J 3/40	..	Measuring the intensity of spectral lines by determining density of a photograph of the spectrum; Spectrography (G01J 3/42 , G01J 3/44 take precedence)
G01J 3/42	..	Absorption spectrometry; Double beam spectrometry; Flicker spectrometry; Reflection spectrometry (beam switching arrangements G01J 3/08)
G01J 2003/421	...	{ Single beam }
G01J 2003/423	...	{ Spectral arrangements using lasers, e.g. tunable }
G01J 2003/425	...	{ Reflectance }
G01J 3/427	...	Dual wavelengths spectrometry
G01J 2003/4275	....	{ Polarised dual wavelength spectrometry }
G01J 3/433	...	Modulation spectrometry; Derivative spectrometry
G01J 2003/4332	....	{ frequency-modulated }
G01J 2003/4334	....	{ by modulation of source, e.g. current modulation }
G01J 2003/4336	....	{ by magnetic modulation, e.g. Zeeman effect }
G01J 3/4338	....	{ Frequency modulated spectrometry }
G01J 3/44	..	Raman spectrometry; Scattering spectrometry; { Fluorescence spectrometry }
G01J 3/4406	...	{ Fluorescence spectrometry }
G01J 3/4412	...	{ Scattering spectrometry (particle sizing by light scattering G01N 15/0205 ; optical velocimetry of particles G01P 5/00D) }
G01J 2003/4418	....	{ Power spectrum }
G01J 2003/4424	...	{ Fluorescence correction for Raman spectrometry }
G01J 3/443	..	Emission spectrometry
G01J 2003/4435	...	{ Measuring ratio of two lines, e.g. internal standard }
G01J 3/447	..	Polarisation spectrometry
G01J 3/45	..	Interferometric spectrometry
G01J 2003/451	...	{ Dispersive interferometric spectrometry }
G01J 2003/452	...	{ with recording of image of spectral transformation, e.g. hologram }
G01J 3/453	...	by correlation of the amplitudes
G01J 3/4531	....	{ Devices without moving parts }
G01J 3/4532	....	{ Devices of compact or symmetric construction (G01J 3/4531 takes precedence) }

G01J 2003/4534	....	{ Interferometer on illuminating side }
G01J 3/4535	....	{ Devices with moving mirror (G01J 3/4532 takes precedence)}
G01J 3/4537	....	{ Devices with refractive scan }
G01J 2003/4538	....	{ Special processing }
G01J 3/457	..	Correlation spectrometry, e.g. of the intensity (G01J 3/453 takes precedence)
G01J 3/46	.	Measurement of colour; Colour measuring devices, e.g. colorimeters (measuring colour temperature G01J 5/60)
G01J 3/461	..	{ with colour spinners }
G01J 3/462	..	{ Computing operations in or between colour spaces; Colour management systems }
G01J 3/463	..	{ Colour matching }
G01J 3/465	..	{ taking into account the colour perception of the eye; using tristimulus detection }
G01J 2003/466	..	{ Coded colour; Recognition of predetermined colour; Determining proximity to predetermined colour }
G01J 2003/467	..	{ Colour computing }
G01J 2003/468	..	{ of objects containing fluorescent agent }
G01J 3/50	..	using electric radiation detectors
G01J 3/501	...	{ Colorimeters using spectrally-selective light sources, e.g. LEDs }
G01J 3/502	...	{ using a dispersive element, e.g. grating, prism }
G01J 2003/503	...	{ Densitometric colour measurements }
G01J 3/504	...	{ Goniometric colour measurements, for example measurements of metallic or flake based paints }
G01J 3/505	...	{ measuring the colour produced by lighting fixtures other than screens, monitors, displays or CRTs }
G01J 3/506	...	{ measuring the colour produced by screens, monitors, displays or CRTs }
G01J 2003/507	...	{ the detectors being physically selective }
G01J 3/508	...	{ measuring the colour of teeth }
G01J 3/51	...	using colour filters
G01J 3/513	....	{ having fixed filter-detector pairs }
G01J 2003/516	.....	{ with several stacked filters or stacked filter-detector pairs }
G01J 3/52	..	using colour charts
G01J 3/522	...	{ circular colour charts }
G01J 3/524	...	{ Calibration of colorimeters }
G01J 3/526	...	{ for choosing a combination of different colours, e.g. to produce a pleasing effect for an observer }
G01J 3/528	....	{ using colour harmony theory }
G01J 4/00		Measuring polarisation of light (investigating or analysing materials by measuring rotation of plane of polarised light G01N 21/21)
G01J 2004/001	.	{ Devices }
G01J 2004/002	..	{ Selecting polarisation direction }

G01J 2004/004	... { sequential, i.e. time-divided }
G01J 2004/005	... { simultaneous, i.e. space-divided }
G01J 2004/007	... { Mechanical mounting }
G01J 2004/008	. { Polarisation rate }
G01J 4/02	. Polarimeters of separated-field type; Polarimeters of half-shadow type
G01J 4/04	. Polarimeters using electric detection means (G01J 4/02 takes precedence)
G01J 5/00	Radiation pyrometry (photometry in general G01J 1/00 ; spectrometry in general G01J 3/00) { measuring temperature in general, i.e. with a contacting sensor G01K ; calorimetry of radiation beams G01K 17/00 ; direction finders for radiant sources G01S ; intrusion detection by radiation G08B }
G01J 5/0003	. { for sensing the radiant heat transfer of samples, e.g. emittance meter }
G01J 5/0007	.. { of wafers or semiconductor substrates, e.g. using Rapid Thermal Processing }
G01J 5/0011	.. { Ear thermometers (G01J 5/021 and G01J 5/049 take precedence)}
G01J 5/0014	. { for sensing the radiation from gases, flames }
G01J 5/0018	.. { Flames, plasma or welding }
G01J 5/0022	. { for sensing the radiation of moving bodies }
G01J 5/0025	.. { Living bodies (ear thermometers G01J 5/0011 ; detecting, measuring or recording for diagnostic purposes A61B 5/00)}
G01J 2005/0029	.. { Sheet }
G01J 2005/0033	.. { Wheel }
G01J 5/0037	. { for sensing the heat emitted by liquids }
G01J 5/004	.. { by molten metals }
G01J 5/0044	. { Furnaces, ovens, kilns (G01J 5/0007 , G01J 5/004 take precedence)}
G01J 2005/0048	. { Calibrating; Correcting }
G01J 2005/0051	.. { Methods for correcting for emissivity }
G01J 2005/0055	.. { Atmospheric correction }
G01J 2005/0059	.. { Correcting for reflection of the emitter radiation }
G01J 2005/0062	.. { Linearising circuits }
G01J 5/0066	. { for hot spots detection }
G01J 5/007	. { for earth observation }
G01J 2005/0074	. { having separate detection of emissivity }
G01J 2005/0077	. { Imaging }

- G01J 2005/0081 . { Thermography }
- G01J 2005/0085 .. { Temperature profile }
- G01J 5/0088 . { in turbines }
- G01J 2005/0092 . { Temperature by averaging, e.g. by scan (scan intended for space- resolved determination [G01J 2005/0081](#)) }
- G01J 5/0096 . { for measuring wires, electrical contacts or electronic systems }
- G01J 5/02 . Details
 - G01J 5/0205 .. { Mechanical elements; Supports for optical elements }
 - G01J 5/021 .. { Probe covers for thermometers, e.g. tympanic thermometers; Containers for probe covers; Disposable probes }
 - G01J 5/0215 .. { Compact construction }
 - G01J 5/022 ... { Monolithic }
 - G01J 5/0225 .. { Shape of the cavity itself or of elements contained in or suspended over the cavity }
 - G01J 5/023 ... { Particular leg structure or construction or shape; Nanotubes }
 - G01J 5/0235 ... { Spacers, e.g. for avoidance of stiction }
 - G01J 5/024 ... { Special manufacturing steps or sacrificial layers or layer structures }
 - G01J 5/0245 ... { for performing thermal shunt }
 - G01J 5/025 .. { Interfacing a pyrometer to an external device or network; User interface }
 - G01J 5/0255 .. { Sample holders for pyrometry; Cleaning of sample (using a gas purge [G01J 5/029](#)) }
 - G01J 5/026 .. { Control of working procedures of a pyrometer, other than calibration (calibration [G01J 2005/0048](#) and [G01J 5/522](#)); Detecting failures in the functioning of a pyrometer; Bandwidth calculation; Gain control; Security control }
 - G01J 5/0265 .. { Handheld, portable (ear thermometers [G01J 5/049](#)) }
 - G01J 5/027 .. { making use of sensor-related data, e.g. for identification of sensor parts or optical elements }
 - G01J 5/0275 .. { Control or determination of height or distance or angle information for sensors or receivers }
 - G01J 5/028 .. { using a charging unit or battery }
 - G01J 5/0285 .. { Constructional arrangements for compensating for fluctuations caused by humidity, pressure or electromagnetic waves; Controlling the atmosphere inside a pyrometer ([G01J 5/029](#) takes precedence) }
 - G01J 5/029 .. { using a gas purge }
 - G01J 5/0295 .. { Nulling devices or absolute detection }
 - G01J 5/04 .. Casings { Mountings }
 - G01J 5/041 ... { Mountings in enclosures or in a particular environment }
 - G01J 5/042 { High-temperature environment ([G01J 5/0007](#), [G01J 5/0044](#), [G01J 5/0088](#) and [G01J 5/004](#) take precedence) }

G01J 5/043	....	{ Prevention or determination of dust, smog or clogging (G01J 5/029 takes precedence)}
G01J 5/044	....	{ Environment with strong vibrations or shocks }
G01J 5/045	....	{ Sealings; Vacuum enclosures; Encapsulated packages; Wafer bonding structures; Getter arrangements (getter arrangements per se H01L 23/26 and H01L 21/3221)}
G01J 5/046	...	{ Materials; Selection of thermal materials }
G01J 5/047	...	{ Mobile mounting; Scanning arrangements }
G01J 5/048	...	{ Protective parts }
G01J 5/049	...	{ Casings for tympanic thermometers }
G01J 5/06	..	Arrangements for eliminating effects of disturbing radiation
G01J 5/061	...	{ using cooling or thermostating of parts of the apparatus (cooling techniques in general F17C, F25J)}
G01J 2005/062	....	{ Peltier }
G01J 2005/063	....	{ Heating; Thermostating }
G01J 2005/065	...	{ by shielding }
G01J 2005/066	...	{ Differential arrangement, i.e. sensitive/not sensitive }
G01J 2005/067	...	{ Compensating for environment parameters }
G01J 2005/068	....	{ Ambient temperature sensor; Housing temperature sensor }
G01J 5/08	..	Optical features { optical-mechanical scanning H04N 5/33 , G02B 26/10 }
G01J 5/0803	...	{ Optical elements not provided otherwise, e.g. optical manifolds, gratings, holograms, cubic beamsplitters, prisms, particular coatings }
G01J 5/0806	....	{ using focussing or collimating elements,e.g. lenses or mirrors }
G01J 5/0809	....	{ using plane or convex mirrors, parallel phase plates or particular reflectors }
G01J 5/0812	....	{ using attenuators }
G01J 5/0815	....	{ using light concentrators, collectors or condensers }
G01J 5/0818	....	{ using waveguides, rods or tubes }
G01J 5/0821	.....	{ using optical fibers }
G01J 5/0825	....	{ using polarizing elements }
G01J 5/0828	....	{ using notch filters }
G01J 5/0831	....	{ using masks, e.g. structured apertures, using aperture plates or using spatial light modulators or spatial filters, e.g. reflective filters }
G01J 5/0834	....	{ using shutters or modulators }
G01J 5/0837	....	{ using micro-antennas, e.g. bow-tie }
G01J 5/084	....	{ Adjustable, slidable }
G01J 5/0843	.....	{ Manually adjustable }
G01J 5/0846	....	{ using multiple detectors for performing different types of detection, e.g. radiometry and reflectometry channels }
G01J 5/085	....	{ having a throughhole enabling the optical element to fulfil an additional optical function, e.g. a mirror or grating having a throughhole for a light collecting or light injecting optical fiber }

G01J 5/0853	....	{ using infrared absorbers other than the usual absorber layers deposited on infrared detectors like bolometers, wherein the heat propagation between the absorber and the detecting element occurs within a solid }
G01J 5/0856	....	{ Slit arrangements }
G01J 5/0859	....	{ using a sighting arrangement, or a camera for the same purpose }
G01J 5/0862	....	{ using optical filters (G01J 5/602 , G01J 5/0828 take precedence)}
G01J 5/0865	....	{ using means for replacing an element by another, e.g. for replacing a filter }
G01J 5/0868	....	{ using means for illuminating a slit or a surface efficiently, e.g. entrance slit of a pyrometer or entrance face of a fiber }
G01J 5/0871	....	{ Beam switching arrangements; Photodetection involving different fields of view for a single detector }
G01J 5/0875	....	{ Windows or their fastening arrangements }
G01J 5/0878	....	{ Diffusers }
G01J 5/0881	...	{ Compact construction }
G01J 5/0884	....	{ Monolithic }
G01J 5/0887	...	{ Integrating cavities mimicking black bodies, wherein the heat propagation between the black body and the measuring element does not occur within a solid; Use of bodies placed inside the fluid stream for measurement of the temperature of gases; Use of the reemission from a surface, e.g. reflective surface; Emissivity enhancement by multiple reflections }
G01J 5/089	...	{ Field-of-view determination; Aiming or pointing of a pyrometer; Adjusting alignment; Encoding angular position; Size of the measuring area; Position tracking }
G01J 5/0893	...	{ Arrangements to attach devices to a pyrometer, i.e. attaching an optical interface; Spatial relative arrangement of optical elements, e.g. folded beam path (G01J 5/049 takes precedence)}
G01J 5/0896	...	{ using a light source, e.g. for illuminating a surface }
G01J 5/10	.	using electric radiation detectors
G01J 2005/103	..	{ Absorbing heated plate or film and temperature detector }
G01J 2005/106	..	{ Arrays }
G01J 5/12	..	using thermoelectric elements, e.g. thermocouples (thermoelectric elements per se H01L 35/00 , H01L 37/00)
G01J 2005/123	...	{ Thermoelectric array }
G01J 2005/126	...	{ Thermoelectric black plate and thermocouple }
G01J 5/14	...	Electrical features
G01J 5/16	....	Arrangements with respect to the cold junction; Compensating influence of ambient temperature or other variables
G01J 5/18	....	Special adaptation for indicating or recording (indicating or recording measured values in general G01D)
G01J 5/20	..	using resistors, thermistors, or semi-conductors sensitive to radiation
G01J 2005/202	...	{ Arrays }
G01J 2005/204	....	{ prepared by semiconductor processing, e.g. VLSI }
G01J 2005/206	...	{ on foils }

G01J 2005/208	...	{ superconductive }
G01J 5/22	...	Electrical features
G01J 5/24	....	Use of a specially-adapted circuit, e.g. bridge circuit
G01J 5/26	....	Special adaptation for indicating or recording (indicating or recording measured values in general G01D)
G01J 5/28	..	using photo-emissive, photo-conductive, or photo-voltaic cells
G01J 2005/283	...	{ Array }
G01J 2005/286	....	{ Arrangement of conductor therefor }
G01J 5/30	...	Electrical features
G01J 5/32	....	Special adaptation for indicating or recording (indicating or recording measured values in general G01D)
G01J 5/34	..	using capacitors { e.g. pyroelectric elements }
G01J 2005/345	...	{ Arrays }
G01J 5/36	..	using ionisation of gases
G01J 5/38	.	using extension or expansion of solids or fluids
G01J 5/40	..	using bimetallic elements
G01J 5/42	..	using Golay cells
G01J 2005/425	...	{ Micro-array }
G01J 5/44	..	using change of resonant frequency, e.g. of piezo-electric crystal
G01J 5/46	.	using radiation pressure or radiometer effect
G01J 5/48	.	using wholly visual means
G01J 5/50	.	using techniques specified in the subgroups below
G01J 5/505	..	{ using photographic recording }
G01J 5/52	..	using comparison with reference sources, e.g. disappearing-filament pyrometer
G01J 5/522	...	{ Reference sources, e.g. standard lamps; Black bodies }
G01J 5/524	...	{ using a reference heater of the emissive surface type, e.g. for selectively absorbing materials }
G01J 2005/526	...	{ Periodic insertion of emissive surface }
G01J 2005/528	...	{ Periodic comparison }
G01J 5/54	...	Optical features
G01J 5/56	...	Electrical features
G01J 5/58	..	using absorption; using polarisation; using extinction effect
G01J 2005/583	...	{ Interferences, i.e. fringe variation with temperature }
G01J 2005/586	...	{ Polarisation }
G01J 5/60	..	using determination of colour temperature { Pyrometry using two wavelengths filtering; using selective, monochromatic or bandpass filtering; using spectral scanning }
G01J 5/601	...	{ using spectral scanning }
G01J 5/602	...	{ using selective, monochromatic or bandpass filtering }

G01J 2005/604	.... { bandpass filtered }
G01J 5/605	... { using visual determination }
G01J 2005/607	... { on two separate detectors }
G01J 2005/608	... { Colour temperature of lamps, soruces or the like }
G01J 5/62	.. using means for chopping the light { Compensation for background radiation of chopper element }
G01J 2005/623	... { Compensating radiation of chopper }
G01J 2005/626	... { Electrooptic chopper }

G01J 7/00 **Measuring velocity of light**

G01J 9/00 **Measuring optical phase difference** ([devices or arrangements for controlling the phase of light beams G02F 1/01](#)); **Determining degree of coherence**; **Measuring optical wavelength** ([spectrometry G01J 3/00](#))

G01J 2009/002	. { Wavefront phase distribution }
G01J 2009/004	. { Mode pattern }
G01J 2009/006	. { using pulses for physical measurements }
G01J 2009/008	.. { using decay time in cavity }
G01J 9/02	. by interferometric methods (using interferometers for measuring optically the linear dimensions of objects G01B 9/02)
G01J 2009/0203	.. { Phased array of beams }
G01J 2009/0207	.. { Double frequency, e.g. Zeeman }
G01J 2009/0211	.. { for measuring coherence }
G01J 9/0215	.. { by shearing interferometric methods }
G01J 2009/0219	... { using two or more gratings }
G01J 2009/0223	.. { Common path interferometry; Point diffraction interferometry }
G01J 2009/0226	.. { Fibres }
G01J 2009/023	... { of the integrated optical type }
G01J 2009/0234	.. { Measurement of the fringe pattern }
G01J 2009/0238	... { the pattern being processed optically, e.g. by Fourier transformation }
G01J 2009/0242	.. { Compensator }
G01J 9/0246	.. { Measuring optical wavelength }
G01J 2009/0249	.. { with modulation }
G01J 2009/0253	... { of wavelength }
G01J 2009/0257	.. { multiple, e.g. Fabry Perot interferometer }
G01J 2009/0261	.. { polarised }
G01J 2009/0265	... { with phase modulation }
G01J 2009/0269	.. { Microscope type }

- G01J 2009/0273 .. { Ring interferometer }
- G01J 2009/0276 .. { Stellar interferometer, e.g. Sagnac }
- G01J 2009/028 .. { Types }
- G01J 2009/0284 ... { Michelson }
- G01J 2009/0288 ... { Machzehnder }
- G01J 2009/0292 ... { Fizeau; Wedge }
- G01J 2009/0296 ... { achromatic }

- G01J 9/04 . by beating two waves of a same source but of different frequency and measuring the phase shift of the lower frequency obtained

- G01J 11/00 Measuring the characteristics of individual optical pulses or of optical pulse trains**

- G01J 2011/005 . { Streak cameras }