

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F21 LIGHTING (NOTE omitted)

F21K NON-ELECTRIC LIGHT SOURCES USING LUMINESCENCE; LIGHT SOURCES USING ELECTROCHEMILUMINESCENCE; LIGHT SOURCES USING CHARGES OF COMBUSTIBLE MATERIAL; LIGHT SOURCES USING SEMICONDUCTOR DEVICES AS LIGHT-GENERATING ELEMENTS; LIGHT SOURCES NOT OTHERWISE PROVIDED FOR

NOTE

In this subclass, it is desirable to add the indexing codes of subclasses [F21W](#) and [F21Y](#).

WARNING

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

F21K 5/04	covered by	G03B 15/0457 ;
F21K 5/06	covered by	G03B 15/0442 ;
F21K 5/08	covered by	F21K 5/02 , G03B 15/0442 ;
F21K 5/10	covered by	G03B 15/0442 ;
F21K 5/12	covered by	F21K 5/023 ;
F21K 5/14	covered by	F21K 5/026 , G03B 15/0489 ;
F21K 5/16	covered by	G03B 15/0452 ;
F21K 5/18	covered by	G03B 15/0452 ;
F21K 5/20	covered by	G03B 15/0447 ;
F21K 5/22	covered by	G03B 15/0442 .

2/00 Non-electric light sources using luminescence (using excitation by radioactivity [G21H 3/02](#), [H01J 65/06](#), [H01J 65/08](#); using excitation by an external electromagnetic field or by external corpuscular radiation [H01J 65/04](#)); Light sources using electrochemiluminescence

- 2/005 . {excited by infra-red radiation using up-conversion}
- 2/04 . using triboluminescence; using thermoluminescence
- 2/06 . using chemiluminescence
- 2/08 . . activated by an electric field, i.e.
electrochemiluminescence

5/00 Light sources using charges of combustible material, e.g. illuminating flash devices

- 5/02 . {ignited in a non-disrupting container, e.g. photo-
flash bulb}
- 5/023 . . {Ignition devices in photo flash bulbs}
- 5/026 . . . {using mechanical firing, e.g. percussion of a
fulminating charge}

9/00 Light sources using semiconductor devices as light-generating elements, e.g. using light-emitting diodes [LED] or lasers

NOTES

1. In this group, the following expressions are used
with the meaning indicated:

- "light source" means a light-generating component intended for installation in a fitting or holder incorporated in a lighting device;
 - "retrofit light source" means a light source comprising substantially the same attachment means as those of incandescent lamps or fluorescent lamps. "Retrofit light sources" are specially adapted for replacing or substituting such lamps.
2. Semiconductor devices *per se*, or assemblies thereof, specially adapted for light emission, e.g. for use in light sources (in the sense of Note (1)) are covered by subclasses [H01L](#) (e.g. [H01L 33/00](#)), [H01S](#) (e.g. [H01S 5/00](#)) or class [H10](#) and subclass [H10K](#) (e.g. [H10K 50/00](#) and [H10K 59/00](#))
 3. Lighting devices or systems in which light sources are used are covered by subclasses [F21L](#) or [F21S](#).
 4. When classifying in this group, classification is also made in subclass [F21V](#) if detail aspects covered by that subclass are of interest.
- 9/20 . Light sources comprising attachment means
 - 9/23 . . Retrofit light sources for lighting devices with a single fitting for each light source, e.g. for substitution of incandescent lamps with bayonet or threaded fittings

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- 9/232 . . . specially adapted for generating an essentially omnidirectional light distribution, e.g. with a glass bulb
- 9/233 . . . specially adapted for generating a spot light distribution, e.g. for substitution of reflector lamps
- 9/235 . . . Details of bases or caps, i.e. the parts that connect the light source to a fitting; Arrangement of components within bases or caps ([F21K 9/238 takes precedence](#))
- 9/237 . . . Details of housings or cases, i.e. the parts between the light-generating element and the bases; Arrangement of components within housings or cases ([F21K 9/238 takes precedence](#))
- 9/238 . . . Arrangement or mounting of circuit elements integrated in the light source
- 9/27 . . Retrofit light sources for lighting devices with two fittings for each light source, e.g. for substitution of fluorescent tubes
- 9/272 . . . Details of end parts, i.e. the parts that connect the light source to a fitting; Arrangement of components within end parts ([F21K 9/278 takes precedence](#))
- 9/275 . . . Details of bases or housings, i.e. the parts between the light-generating element and the end caps; Arrangement of components within bases or housings ([F21K 9/278 takes precedence](#))
- 9/278 . . . Arrangement or mounting of circuit elements integrated in the light source
- 9/60 . Optical arrangements integrated in the light source, e.g. for improving the colour rendering index or the light extraction
- 9/61 . . using light guides
- 9/62 . . using mixing chambers, e.g. housings with reflective walls
- 9/64 . . using wavelength conversion means distinct or spaced from the light-generating element, e.g. a remote phosphor layer
- 9/65 . . specially adapted for changing the characteristics or the distribution of the light, e.g. by adjustment of parts
- 9/66 . . Details of globes or covers forming part of the light source
- 9/68 . . Details of reflectors forming part of the light source
- 9/69 . . Details of refractors forming part of the light source
- 9/90 . Methods of manufacture
- 99/00 Subject matter not provided for in other groups of this subclass**
- 2099/005 . {Other light sources comprising light emitting diodes associated with conversion means}