F21K

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 ELECTROCHEMILUMINESCE; 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 subclass H01L, e.g. H01L 33/00 or
   H01L 31/50, or by subclass H01S.

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.
WARNINGS
1. Group F21K 9/00 is incomplete pending reclassification of documents from groups F21K 99/00, F21V 19/042, F21V 19/045, F21S 2/00.
All groups listed in this Warning should be considered in order to perform a complete search.
All groups listed in this Warning should be considered in order to perform a complete search.

9/20 Light sources comprising attachment means
WARNINGS
1. Group F21K 9/20 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.
All groups listed in this Warning should be considered in order to perform a complete search.
All groups listed in this Warning should be considered in order to perform a complete search.

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
WARNINGS
All groups listed in this Warning should be considered in order to perform a complete search.
All groups listed in this Warning should be considered in order to perform a complete search.

9/232 specially adapted for generating an essentially omnidirectional light distribution, e.g. with a glass bulb
WARNING
Group F21K 9/232 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/20, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.
All groups listed in this Warning should be considered in order to perform a complete search.

9/233 specially adapted for generating a spot light distribution, e.g. for substitution of reflector lamps
WARNING
Group F21K 9/233 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/20, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.
All groups listed in this Warning should be considered in order to perform a complete search.

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)
WARNING
Group F21K 9/235 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/20, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.
All groups listed in this Warning should be considered in order to perform a complete search.

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)
WARNING
Group F21K 9/237 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/20, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.
All groups listed in this Warning should be considered in order to perform a complete search.
Arrangement or mounting of circuit elements integrated in the light source

**WARNING**


All groups listed in this Warning should be considered in order to perform a complete search.

Retrofit light sources for lighting devices with two fittings for each light source, e.g. for substitution of fluorescent tubes

**WARNINGS**


All groups listed in this Warning should be considered in order to perform a complete search.


All groups listed in this Warning should be considered in order to perform a complete search.

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)

**WARNING**


All groups listed in this Warning should be considered in order to perform a complete search.

Optical arrangements integrated in the light source, e.g. for improving the colour rendering index or the light extraction

**WARNINGS**

1. Group F21K 9/60 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.


All groups listed in this Warning should be considered in order to perform a complete search.

Using light guides

**WARNING**

Group F21K 9/61 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

Using mixing chambers, e.g. housings with reflective walls

**WARNING**

Group F21K 9/62 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 99/00, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.
9/64 . . using wavelength conversion means distinct or spaced from the light-generating element, e.g. a remote phosphor layer

**WARNING**

Group F21K 9/64 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

9/65 . . specially adapted for changing the characteristics or the distribution of the light, e.g. by adjustment of parts

**WARNING**

Group F21K 9/65 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

9/66 . . Details of globes or covers forming part of the light source

**WARNING**

Group F21K 9/66 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

9/68 . . Details of reflectors forming part of the light source

**WARNING**

Group F21K 9/68 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/60, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

9/69 . . Details of refractors forming part of the light source

**WARNING**

Group F21K 9/69 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/60, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

9/90 . . Methods of manufacture

**WARNING**

Group F21K 9/90 is incomplete pending reclassification of documents from groups F21K 9/00, F21K 9/90, F21S 2/00, F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.

99/00 Subject matter not provided for in other groups of this subclass

**WARNINGS**

1. Group F21K 99/00 is incomplete pending reclassification of documents from groups F21V 19/042 and F21V 19/045.

All groups listed in this Warning should be considered in order to perform a complete search.


All groups listed in this Warning should be considered in order to perform a complete search.

2099/005 . . (Other light sources comprising light emitting diodes associated with conversion means)