

**CPC****COOPERATIVE PATENT CLASSIFICATION****F21K****LIGHT SOURCES NOT OTHERWISE PROVIDED FOR****WARNING**

The following IPC groups are not used in the CPC system. Subject matter covered by these groups is classified in the following CPC groups:

[F21K 5/04](#) covered by [G03B 15/0457F21K 5/06](#)  
 " " [G03B 15/0442F21K 5/08](#) " " [F21K 5/02](#) ,  
[G03B 15/0442F21K 5/10](#) " " [G03B 15/0442F21K 5/12](#) " "  
[F21K 5/023F21K 5/14](#) " " [F21K 5/026](#) , [G03B 15/0489F21K 5/16](#)  
 " " [G03B 15/0452F21K 5/18](#) " " [G03B 15/0452F21K 5/20](#) " "  
[G03B 15/0447F21K 5/22](#) " " [G03B 15/0442](#)

Groups [F21K 9/00](#) to [F21K 9/90](#) do not correspond to former or current IPC groups.

Concordance CPC : IPC for these groups is as follows:

- [F21K 9/00](#) to [F21K 9/90](#) : [F21K 99/00](#)

**F21K 2/00**

**Light sources using luminescence**( using excitation by another light source [F21V 9/16](#) ; lamps, other than those in which all the electrodes are within the vessel, in which a screen or coating is excited to luminesce by radioactive material located inside the vessel [H01J 65/08](#) ; using electroluminescence [H05B 33/00](#))

## F21K 2/005

- . {excited by infra-red radiation using up-conversion( frequency changing of light [G02F 2/02](#))}

## F21K 2/04

- . using triboluminescence; using thermoluminescence

## F21K 2/06

- . using chemiluminescence

## F21K 2/08

- .. activated by an electric field i.e. electrochemiluminescence

**F21K 5/00**

**Light sources using a charge of combustible material, e.g. illuminating flash devices**( explosive or thermic compositions [C06B](#); fireworks [F42B 4/00](#) ; photographic flash units [G03B 15/03](#))

## F21K 5/02

- . ignited in a non-disrupting container, e.g. photo-flash bulb

## F21K 5/023

- .. {Ignition devices in photo flash bulbs( ignition devices being part of a shutter mechanism included in a camera [G03B 9/70](#) ; ignition devices not being part of a shutter mechanism included in a camera [G03B 15/04](#) ; ignition circuits for combustion lamps [H05B 43/02](#))}

## F21K 5/026

- ... {using mechanical firing e.g. percussion of a fulminating charge( if included in a camera [G03B 15/0489](#))}

**F21K 9/00** {Electric lamps using semiconductor devices as light generating elements, e.g. using light emitting diodes [LED] **or lasers**( light emitting diodes per se [H01L 33/00](#) , [H01L 51/50](#) ; semiconductor lasers per se [H01S 5/00](#) ; electric lamps using a combination of different types of light generation [H05B 35/00](#))]

**WARNING**

This group is not complete pending a reclassification; see also [F21K 99/00](#) , [H01L 33/00](#) , [H01S 5/00](#) , [H05B 35/00](#)

- [F21K 9/10](#) . {specially adapted for retrofitting or substituting conventional lamps, e.g. for substitution of incandescent lamps or fluorescent tubes}
- [F21K 9/13](#) .. {with only one fitting, e.g. a bayonet or screw based fitting}
- [F21K 9/135](#) ... {specially adapted for generating an omni-directional light distribution, e.g. with a glass bulb}
- [F21K 9/1355](#) .... {Details of the base; Arrangements of components inside the base}
- [F21K 9/137](#) ... {specially adapted for generating a spot light distribution, e.g. to substitute reflector lamps}
- [F21K 9/1375](#) .... {Details of the base; Arrangements of components in the base}
- [F21K 9/17](#) .. {with two fittings, e.g. for substituting a fluorescent tube}
- [F21K 9/175](#) ... {Details of the base; Arrangements of components in the base}
- [F21K 9/30](#) . { LED lamps or modules comprising attachment means not covered by groups [F21K 9/10](#) to [F21K 9/175](#)}
- [F21K 9/50](#) . {Optical arrangements, i.e. for improving the color rendering index or the light extraction}
- [F21K 9/52](#) .. {using a light guide}
- [F21K 9/54](#) .. {using a mixing chamber, e.g. a housing with reflective walls}
- [F21K 9/56](#) .. {using wavelength conversion means distinct or spaced from the light generating element, e.g. a remote phosphor layer}
- [F21K 9/58](#) .. {specially adapted for changing the characteristics or the distribution of the light, e.g. by movement of parts}
- [F21K 9/90](#) . {Manufacturing methods}
- F21K 99/00** **Subject matter not provided for in other groups of this subclass**
- [F21K 2099/005](#) . {Other light sources comprising light emitting diodes associated with conversion means}