

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 15/0457	
F21K 5/06	" "	G03B 15/0442	
F21K 5/08	" "	F21K 5/02	
,	G03B 15/0442	F21K 5/10 "	
"	G03B 15/0442	F21K 5/12 "	
"	F21K 5/023	F21K 5/14 "	
"	F21K 5/026	,	G03B 15/0489
F21K 5/16	" "	G03B 15/0452	
F21K 5/18	" "	G03B 15/0452	
F21K 5/20	" "	G03B 15/0447	
F21K 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}