New fluorescent dual-emission dyes

Color tunable fluorescent molecules in liquid and solid state for white and colour applications

KEYWORDS

Fluorescence
ESIPT
White emitters
Dual emission

PATENT

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INVENTOR

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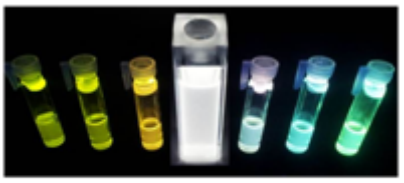
TECHNOLOGY

- Dual-emission fluorescent molecule family
- Dual emission with one molecule only
- Fluorescence up to 54% for color and 30% for white
- Color tunable with electrodonating or attracting substituents



Solution and Solid-State
White Light ESIPT Emission

APPLICATIONS

- Solid-state lightning
- Optoelectronics
- Analytical chemistry or biochemistry
- Ratiometric detector
- Dye or pigment for colouring or light brightening

INNOVATION ADVANTAGES

- Solid and liquid state fluorescence (on the contrary of most π-conjugated dyes)
- Few steps only synthesis
- Successful integration in polymer films and matrix (Higher quantum yield than in fluid solution)

DEVELOPMENT STATUS

- Synthesis and fluorescence testing of 11 compounds
- Improvement of quantum yield , lifetime and color

Partnership: Seeking for partners to enter the co-conception program

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