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BYUN et al.(10) **Pub. No.: US 2023/0231085 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **WIDE COLOR GAMUT LIGHT-EMITTING
ELEMENT**(71) Applicant: **Seoul Semiconductor Co., Ltd.**,
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Yong Han**, Ansan-si (KR)(21) Appl. No.: **18/123,953**(22) Filed: **Mar. 20, 2023****Related U.S. Application Data**(63) Continuation of application No. 17/022,070, filed on
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H01L 25/075 (2006.01)**H01L 33/48** (2010.01)**C09K 11/77** (2006.01)**C09K 11/64** (2006.01)**H01L 33/56** (2010.01)(52) **U.S. Cl.**CPC **H01L 33/502** (2013.01); **H01L 25/0753**(2013.01); **H01L 33/483** (2013.01); **C09K****11/7734** (2013.01); **C09K 11/643** (2013.01);**H01L 33/56** (2013.01); **H01L 33/504**(2013.01); **H01L 33/486** (2013.01)

(57)

ABSTRACT

A light emitting device including a housing including walls defining a cavity having one side thereof opened, a light emitter to emit light having a peak wavelength in a blue wavelength band and including first and second light emitting chips, a reflective region in the housing to reflect light, and a wavelength conversion layer disposed on the light emitter and including a first wavelength converter and a second wavelength converter to emit light having different peak wavelengths from each other, in which the first wavelength converter has a first excitation peak wavelength and the second wavelength converter has a second excitation peak wavelength, and the second wavelength converter includes a fluoride-based red phosphor represented by $A_2MF_6:Mn^{++}$, where A is one of Li, Na, K, Ba, Rb, Cs, Mg, Ca, Se, and Zn, and M is one of Ti, Si, Zr, Sn, and Ge.

