



US 20240215446A1

(19) **United States**(12) **Patent Application Publication**
FURUE et al.(10) **Pub. No.: US 2024/0215446 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **LIGHT EMITTING DEVICE AND
POLYCYCLIC COMPOUND FOR THE SAME**(71) Applicant: **Samsung Display Co., Ltd.**, Yongin-si
(KR)(72) Inventors: **Ryuhei FURUE**, Yokohama (JP);
Yoshiro SUGITA, Yokohama (JP)(73) Assignee: **Samsung Display Co., Ltd.**, Yongin-si
(KR)(21) Appl. No.: **18/469,628**(22) Filed: **Sep. 19, 2023**(30) **Foreign Application Priority Data**

Dec. 13, 2022 (KR) 10-2022-0173950

Publication Classification(51) **Int. Cl.**
H10K 85/60 (2006.01)
C09K 11/06 (2006.01)(52) **U.S. Cl.**CPC **H10K 85/658** (2023.02); **C09K 11/06**
(2013.01); **H10K 85/6572** (2023.02); **C07B**
2200/05 (2013.01); **H10K 2101/20** (2023.02)

(57)

ABSTRACT

Embodiments provide a light emitting device that includes a first electrode, a second electrode facing the first electrode, and at least one functional layer disposed between the first electrode and the second electrode, wherein the at least one functional layer includes a first compound represented by Formula 1, and at least one of a second compound represented by Formula HT and a third compound represented by Formula ET, and wherein Formula 1, Formula HT, and Formula ET are each explained in the specification.

[Formula 1]

