

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2024/0251580 A1 Kim et al.

Jul. 25, 2024 (43) **Pub. Date:** 

## (54) LIGHT-EMITTING DEVICE AND ELECTRONIC APPARATUS INCLUDING THE SAME

(71) Applicant: Samsung Display Co., Ltd., Yongin-si

(72) Inventors: Gyeongheon Kim, Yongin-si (KR); Sooryun Cho, Yongin-si (KR); Jihye Kim, Yongin-si (KR); Hoilim Kim, Yongin-si (KR); Saerom Park,

Yongin-si (KR); Yongsub Shim, Yongin-si (KR); Dongsun Yoo,

Yongin-si (KR)

(21) Appl. No.: 18/401,243

(22) Filed: Dec. 29, 2023

### (30)Foreign Application Priority Data

Dec. 30, 2022	(KR)	10-2022-0191106
Nov. 14, 2023	(KR)	10-2023-0157684
Dec. 28, 2023	(KR)	10-2023-0195517

### **Publication Classification**

(51)	Int. Cl.	
. ,	H10K 50/11	(2006.01)
	C09K 11/06	(2006.01)
	H10K 85/30	(2006.01)
	H10K 85/60	(2006.01)

(52) U.S. Cl. CPC ...... H10K 50/11 (2023.02); C09K 11/06 (2013.01); H10K 85/346 (2023.02); H10K **85/636** (2023.02); **H10K 85/656** (2023.02); C09K 2211/185 (2013.01)

#### ABSTRACT (57)

A light-emitting device, an electronic apparatus including the light-emitting device, and a consumer product including the light-emitting device are provided. The light-emitting device includes a first electrode, a second electrode facing the first electrode, an interlayer arranged between the first electrode and the second electrode and including an emission layer, and a capping layer arranged outside the first electrode or outside the second electrode. The emission layer includes a first emitter, the first emitter emits first light having a maximum emission wavelength of 470 nm or less, the first emitter includes platinum (Pt), and the capping layer includes an amine compound.

