



US 20230232709A1

(19) **United States**(12) **Patent Application Publication**
KO et al.(10) **Pub. No.: US 2023/0232709 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **LIGHT-EMITTING DEVICE AND
ELECTRONIC APPARATUS INCLUDING
THE LIGHT-EMITTING DEVICE**(52) **U.S. Cl.**
CPC *H01L 51/0067* (2013.01); *H01L 51/0087*
(2013.01); *C09K 11/06* (2013.01); *H01L*
51/0094 (2013.01); *H01L 51/0072* (2013.01);
H01L 51/5016 (2013.01)(71) Applicant: **Samsung Display Co., Ltd.**, Yongin-si
(KR)(72) Inventors: **Heejoo KO**, Yongin-si (KR);
Changwoong CHU, Yongin-si (KR)(73) Assignee: **Samsung Display Co., Ltd.**, Yongin-si
(KR)(21) Appl. No.: **17/990,927**(22) Filed: **Nov. 21, 2022**(30) **Foreign Application Priority Data**

Jan. 20, 2022 (KR) 10-2022-0008523

Publication Classification(51) **Int. Cl.**
H01L 51/00 (2006.01)
C09K 11/06 (2006.01)(57) **ABSTRACT**

Provided is a light-emitting device which may include a first electrode, a second electrode facing the first electrode, and an interlayer between the first electrode and the second electrode and including an emission layer, wherein the emission layer includes a host and a dopant, the host includes a first compound and a second compound, the dopant includes a third compound and a fourth compound, the first compound, the second compound, the third compound, and the fourth compound are different from each other, the third compound is a platinum-containing organometallic compound, the platinum-containing organometallic compound includes platinum and a first ligand bonded to the platinum, the first ligand includes a carbene group, the carbon of the carbene group and the platinum are bonded together, and Expression 1 is satisfied, which is explained in the specification.

10

150

130

110