



US 20240215433A1

(19) **United States**

(12) **Patent Application Publication**
Hwang et al.

(10) **Pub. No.: US 2024/0215433 A1**

(43) **Pub. Date: Jun. 27, 2024**

(54) **ORGANOMETALLIC COMPOUND,
ORGANIC LIGHT-EMITTING DEVICE
INCLUDING THE SAME AND ELECTRONIC
APPARATUS INCLUDING THE ORGANIC
LIGHT-EMITTING DEVICE**

Publication Classification

(51) **Int. Cl.**

H10K 85/30 (2006.01)
C07F 15/00 (2006.01)
C09K 11/02 (2006.01)
C09K 11/06 (2006.01)
H10K 50/11 (2006.01)
H10K 50/15 (2006.01)
H10K 50/16 (2006.01)
H10K 50/17 (2006.01)
H10K 50/18 (2006.01)
H10K 101/10 (2006.01)

(52) **U.S. Cl.**

CPC *H10K 85/342* (2023.02); *C07F 15/0033*
(2013.01); *C09K 11/02* (2013.01); *C09K 11/06*
(2013.01); *C09K 2211/1007* (2013.01); *C09K*
2211/1029 (2013.01); *C09K 2211/1044*
(2013.01); *C09K 2211/1088* (2013.01); *C09K*
2211/185 (2013.01); *H10K 50/11* (2023.02);
H10K 50/15 (2023.02); *H10K 50/16*
(2023.02); *H10K 50/17* (2023.02); *H10K*
50/171 (2023.02); *H10K 50/18* (2023.02);
H10K 2101/10 (2023.02)

(71) Applicant: **Samsung Electronics Co., Ltd.**,
Suwon-si (KR)

(72) Inventors: **Kyuyoung Hwang**, Anyang-si (KR);
Byungjoon Kang, Seoul (KR);
Seungyeon Kwak, Suwon-si (KR);
Kum Hee Lee, Suwon-si (KR); **Aram**
Jeon, Seoul (KR); **Sukekazu**
ARATANI, Hwaseong-si (KR); **Banglin**
Lee, Suwon-si (KR); **Kyuhyun Im**,
Seongnam-si (KR); **Byoungki Choi**,
Hwaseong-si (KR); **Yasushi**
KOISHIKAWA, Hwaseong-si (KR)

(21) Appl. No.: **18/417,270**

(22) Filed: **Jan. 19, 2024**

Related U.S. Application Data

(63) Continuation of application No. 18/311,654, filed on
May 3, 2023, which is a continuation of application
No. 17/016,806, filed on Sep. 10, 2020.

Foreign Application Priority Data

Sep. 11, 2019 (KR) 10-2019-0113025
Sep. 8, 2020 (KR) 10-2020-0114307

(57)

ABSTRACT

Provided are an organometallic compound represented by
Formula 1, an organic light-emitting device including the
same and an electronic apparatus including the organic
light-emitting device:

$M(L_1)_{n1}(L_2)_{n2}$

<Formula 1>

wherein M, L_1 , L_2 , $n1$, and $n2$ in Formula 1 are the same
as described in the detailed description.

