



US 20240215301A1

(19) **United States**

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

(10) **Pub. No.: US 2024/0215301 A1**

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

(54) **DISPLAY APPARATUS AND METHOD OF MANUFACTURING THE SAME**

continuation of application No. 16/991,542, filed on Aug. 12, 2020, now Pat. No. 11,456,438.

(71) Applicant: **Samsung Display Co., LTD.**, Yongin-si (KR)

(30) **Foreign Application Priority Data**

Nov. 12, 2019 (KR) 10-2019-0144298

(72) Inventors: **Chang Yeong SONG**, Suwon-si (KR); **Won Jong KIM**, Suwon-si (KR); **Yi Su KIM**, Seoul (KR); **Jong Woo KIM**, Hwaseong-si (KR); **Hye In YANG**, Siheung-si (KR); **Woo Suk JUNG**, Yongin-si (KR); **Yong Chan JU**, Yongin-si (KR); **Jae Heung HA**, Suwon-si (KR)

Publication Classification

(51) **Int. Cl.**
H10K 50/844 (2006.01)
H10K 71/00 (2006.01)
H10K 102/00 (2006.01)

(52) **U.S. Cl.**
CPC **H10K 50/844** (2023.02); **H10K 71/00** (2023.02); **H10K 2102/00** (2023.02)

(73) Assignee: **Samsung Display Co., LTD.**, Yongin-si (KR)

(57) **ABSTRACT**

A display apparatus includes a base substrate, a light emitting structure disposed on the base substrate, and a thin film encapsulation layer disposed on the light emitting structure and including at least one inorganic layer and at least one organic layer. The at least one inorganic layer includes a high density layer having a density of greater than or equal to about 2.0 g/cm³ and a low density layer having a density of less than about 2.0 g/cm³. The high density layer and the low density layer are in contact with each other.

(21) Appl. No.: **18/599,589**

(22) Filed: **Mar. 8, 2024**

Related U.S. Application Data

(63) Continuation of application No. 17/902,063, filed on Sep. 2, 2022, now Pat. No. 11,963,386, which is a

