US 20230232649A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0232649 A1**

KIM et al. (43) **Pub. Date: Jul. 20, 2023**

(54) **DISPLAY DEVICE**

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

(72) Inventors: **HYEONGPIL KIM**, Osan-si (KR); **BEOMJOON KIM**, Seoul (KR); **ILHA SONG**, Asan-si (KR); **DAEWOONG LEE**, Seoul (KR); **BORA LEE**, Hwaseong-si (KR); **ILLHUN CHO**, Seoul (KR)

(21) Appl. No.: **17/979,551**

(22) Filed: **Nov. 2, 2022**

(30) **Foreign Application Priority Data**

Jan. 17, 2022 (KR) 10-2022-0006515

Publication Classification

(51) **Int. Cl.**

H01L 51/50	(2006.01)
H01L 27/32	(2006.01)
H01L 51/52	(2006.01)

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

CPC ***H01L 51/504*** (2013.01); ***H01L 51/5092*** (2013.01); ***H01L 27/3246*** (2013.01); ***H01L 51/5218*** (2013.01); ***H01L 51/5072*** (2013.01); ***H01L 51/5056*** (2013.01)

(57) **ABSTRACT**

A display device including a base layer including a first pixel area configured to emit a first light therefrom and a second pixel area configured to emit a second light therefrom, a first electrode on the base layer, a second electrode on the first electrode and facing the first electrode, first light emitting stacks between the first and second electrodes and in the first pixel area, a first charge generation layer between the first light emitting stacks, second light emitting stacks between the first and second electrodes and in the second pixel area, and a second charge generation layer between the second light emitting stacks. The first charge generation layer includes a first metal, the second charge generation layer includes a second metal different from the first metal, and the second metal has a work function equal to or greater than 1.7 eV and equal to or smaller than 3.2 eV.