US 20240251662A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0251662 A1**

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

(54) **ORGANIC ELECTROLUMINESCENT MATERIALS AND DEVICES**

(71) Applicant: **UNIVERSAL DISPLAY CORPORATION**, Ewing, NJ (US)

(72) Inventors: **Rasha HAMZE**, Philadelphia, PA (US); **Tyler FLEETHAM**, Yardley, PA (US)

(73) Assignee: **UNIVERSAL DISPLAY CORPORATION**, Ewing, NJ (US)

(21) Appl. No.: **18/537,833**

(22) Filed: **Dec. 13, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/387,283, filed on Dec. 14, 2022.

Publication Classification

(51) **Int. Cl.**

H10K 85/60	(2006.01)
C07D 209/86	(2006.01)
C09K 11/06	(2006.01)

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

CPC ***H10K 85/615*** (2023.02); ***C07D 209/86*** (2013.01); ***C09K 11/06*** (2013.01); ***H10K 85/6572*** (2023.02); *H10K 50/12* (2023.02)

(57) **ABSTRACT**

Provided are compounds comprising two cyclic moieties A and B which are each independently a monocyclic or fused polycyclic ring system comprised of one or more 5-membered or 6-membered carbocyclic or heterocyclic rings and which are linked together via at least two separate linkers. Also provided are formulations comprising these compounds. Further provided are organic light emitting devices (OLEDs) and related consumer products that utilize these compounds.