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

(71) Applicant: **Universal Display Corporation**, Ewing, NJ (US)

(72) Inventors: **Wei-Chun SHIH**, Lawrenceville, NJ (US); **Jerald FELDMAN**, Cherry Hill, NJ (US); **Pierre-Luc T. BOUDREAULT**, Pennington, NJ (US)

(73) Assignee: **Universal Display Corporation**, Ewing, NJ (US)

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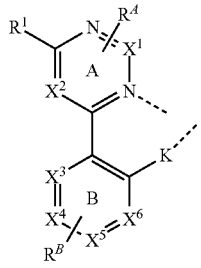
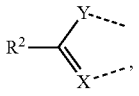
(57) **ABSTRACT**

A compound comprising a first ligand L_A of Formula I,



is provided. In Formula I, each of X^1 to X^6 is C or N; K is a direct bond, O, S, $N(R^\alpha)$, $P(R^\alpha)$, $B(R^\alpha)$, $C(R^\alpha)(R^\beta)$, or $Si(R^\alpha)(R^\beta)$; L_A is coordinated to Ir through the indicated dashed lines; at least one of the following conditions is true: (1) R^1 comprises at least five carbon atoms, and (2) two R^B substituents are joined together to form a structure of Formula II,



fused to ring B; X is CR^X or N; Y is selected from a variety of linkers; each R, R', R", R^α, R^β, R^A, R^B, R^X, R^1, and R^2 is hydrogen or a General Substituent; and Ir may be coordinated to other ligands. Compositions, OLEDs, and consumer products including the compound are also provided.