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(54) **QUANTUM DOT LIGAND, QUANTUM DOT-LIGAND SYSTEM AND QUANTUM DOT MATERIAL**

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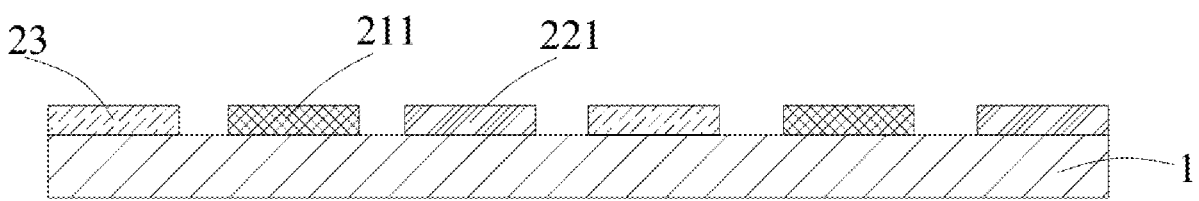
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(57) **ABSTRACT**

The present disclosure provides a quantum dot ligand, a quantum dot-ligand system and a quantum dot material, belonging to the field of display technology. The quantum dot ligand includes an X group, a Y group and a Z group. The Y group is configured to provide at least two binding sites, among which at least one binding site is configured to bind with the X group, and the remaining binding site is configured to bind with the Z group. The X group is a coordination group configured to form a coordination bond with a surface of a quantum dot. The Z group is a saturated 3- to 5-membered heterocyclic group containing O or S.



The diagram shows a cross-sectional view of a device structure. A substrate, labeled 1, is at the bottom. On top of the substrate, there is a layer of quantum dots, labeled 211. Above the quantum dots, there is a layer of ligand, labeled 221. The entire structure is covered by a protective layer, labeled 23.