

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0231315 A1 **HUANG** et al.

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

(54) DUAL-MODE ORBITAL ANGULAR MOMENTUM (OAM) BASE CELL ARRAY AND METASURFACE PREPARATION **METHOD**

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(21) Appl. No.: 17/839,876

(22)Filed: Jun. 14, 2022

(30)Foreign Application Priority Data

Jan. 14, 2022 (CN) 202210041244.9

Publication Classification

(51) Int. Cl. H01Q 15/00 (2006.01)H01Q 1/38 (2006.01)

H01Q 1/50

(2006.01)

(52) U.S. Cl. CPC H01Q 15/0086 (2013.01); H01Q 1/38 (2013.01); **H01Q 1/50** (2013.01)

(57)**ABSTRACT**

The present disclosure provides a dual-mode orbital angular momentum (OAM) convergence base cell array and metasurface preparation method. The base cell array includes 2^n $(2^{n}-1)$ anisotropic cell structures and 2^{n} isotropic cell structures. Each of the anisotropic cell structures includes a bottom ground layer, a dielectric substrate layer and a top pattern layer which are disposed in sequence from bottom to top, where each top pattern layer has an axisymmetric Hshaped structure. Each of the isotropic cell structures includes a bottom ground layer, a dielectric substrate layer and a top pattern layer which are disposed in sequence from bottom to top, where each top pattern layer has a square structure.

