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Chang et al.(10) **Pub. No.: US 2023/0230996 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SENSING DEVICE AND FABRICATING METHOD OF THE SAME****Publication Classification**(51) **Int. Cl.****H01L 27/146** (2006.01)**H01L 31/0224** (2006.01)**H01L 31/0392** (2006.01)**H01L 31/105** (2006.01)(52) **U.S. Cl.**CPC **H01L 27/14636** (2013.01); **H01L 31/0224**(2013.01); **H01L 31/0392** (2013.01); **H01L****31/105** (2013.01); **H01L 27/14665** (2013.01)(71) Applicant: **AUO Corporation**, Hsinchu (TW)(72) Inventors: **Chia-Ming Chang**, Hsinchu (TW);
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Chun-Lin Chen, Hsinchu (TW)(73) Assignee: **AUO Corporation**, Hsinchu (TW)(21) Appl. No.: **17/888,509**(22) Filed: **Aug. 16, 2022****Related U.S. Application Data**

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ABSTRACT

A sensing device including a substrate, a switching element, a sensing element and a common electrode is provided. The switching element is disposed on the substrate and includes a source electrode. The sensing element is disposed at one side of the switching element and includes a lower electrode, a photoelectric conversion layer and an upper electrode. The lower electrode is electrically connected to the source electrode. The photoelectric conversion layer is disposed on the lower electrode. The upper electrode is disposed on the photoelectric conversion layer. The common electrode is electrically connected to the upper electrode and belongs to the same film layer as the source electrode. A fabricating method of a sensing device is also provided.

