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Shi et al.(10) **Pub. No.: US 2024/0178780 A1**(43) **Pub. Date: May 30, 2024**(54) **DIRECT DRIVE TRANSMISSION SYSTEM
AND CONTROL METHOD**(52) **U.S. Cl.**CPC **H02P 25/064** (2016.02); **H02K 41/031**
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ABSTRACT(21) Appl. No.: **18/338,380**(22) Filed: **Jun. 21, 2023****Related U.S. Application Data**(63) Continuation of application No. PCT/CN2023/
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The present disclosure provides a direct drive transmission system and a control method. The direct drive transmission system includes: a base plate, guide rails, a plurality of stators, a mover, a plurality of drivers, and a controller. The plurality of stators are configured to drive the mover to slide on the guide rails. A transmission line composed of the plurality of stators is configured to have at least one low-accuracy segment and at least one high-accuracy segment connected to each other. The direct drive transmission system further includes at least one first switching signal device and a plurality of second switching signal devices. The at least one first switching signal device aligns with a respective second switching signal device, and each second switching signal device is electrically connected to a respective driver or the plurality of second switching signal devices are all electrically connected to the controller.

