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(19) **United States**(12) **Patent Application Publication****Kubota et al.**(10) **Pub. No.: US 2024/0213489 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **ELECTRODE MIXTURE PRODUCTION  
METHOD, ELECTRODE MIXTURE,  
ELECTRODE, AND LITHIUM-ION BATTERY****H01M 4/36** (2006.01)**H01M 4/505** (2006.01)**H01M 4/525** (2006.01)**H01M 10/0525** (2006.01)(71) Applicant: **Toyota Jidosha Kabushiki Kaisha,**  
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Disclosed is a method in which both the suppression of granulation of an active material and the acceleration of production steps are achieved when producing an electrode mixture containing a coated active material. The method comprises dropletizing a slurry containing an active material and a coating liquid to obtain slurry droplets, gas-flow drying the slurry droplets in a heating gas to obtain a first and a second precursor, and firing the first and the second precursor to obtain a first and second particle, wherein the first precursor contains the active material and a component from the coating liquid, the second precursor is free of the active material and contains a component from the coating liquid, the first particle has the active material and a coating layer, and the second particle is free of the active material and contains a component same as that constituting the coating layer.