

## The motion of the upflowing field-aligned electron beams in the auroral acceleration region

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The field-aligned electron beams observed simultaneously with low-energy ion beams are classified into the upward, downward, and counterstreaming beams. We suggest that they are caused by the upflowing electron beams of ionospheric origin entering into the bottom of the auroral acceleration region, and that they evolve into the three types depending on the potential structure of the acceleration region. We discuss the motion of the electron beams in the acceleration region.