

P130b **Probing the mass accretion by the surrounding material in Taurus B211 filament**

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The observations of the Herschel Gould Belt survey project revealed an omnipresence of parsec-scale filaments in molecular clouds. Detailed analysis of the radial column density profiles shows the filaments are characterized by a quasi-uniform distribution with a typical Full width at half maximum value of 0.1 pc. This characteristic width of 0.1 pc suggests that the filaments may form as a result of the dissipation of large-scale turbulence. Furthermore, a lot of sub-filaments are distributed around the main filament. These morphologies suggest that accretion flows are feeding a main filament with the surrounding materials. To examine whether the surrounding materials are inflowing into the B211 filaments by the gravity from the viewpoint of the kinematics, we produced the simple model that the surrounding materials are inflowing by the gravity. We compared the velocity structures of the filament and surrounding materials traced in ^{12}CO and ^{13}CO with the simple model. The position-velocity (PV) diagrams of ^{12}CO and ^{13}CO with cut lines along the perpendicular to the filament show that the peak velocities are approaching to the systemic velocity of the B211 filaments with the approaching to the B211 filaments. The ^{12}CO and ^{13}CO distributions on the PV diagrams have good agreements with that of the simple model of the inflowing gas, suggesting that the surrounding materials are inflowing into the filaments by the gravity.