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Morphological characteristics of motile plants for dynamic motion[1] KAHYE SONG, EUNSEOP YEOM, KIWOONG KIM, SANG JOON LEE, Pohang Univ of Sci & Tech — Most plants have been considered as non-motile organisms. However, plants move in response to environmental changes for survival. In addition, some species drive dynamic motions in a short period of time. Mimosa pudica is a plant that rapidly shrinks its body in response to external stimuli. It has specialized organs that are omnidirectionally activated due to morphological features. In addition, scales of pinecone open or close up depending on humidity for efficient seed release. A number of previous studies on the dynamic motion of plants have been investigated in a biochemical point of view. In this study, the morphological characteristics of those motile organs were investigated by using X-ray CT and micro-imaging techniques. The results show that the dynamic motions of motile plants are supported by structural features related with water transport. These studies would provide new insight for better understanding the moving mechanism of motile plant in morphological point of view.

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Kahye Song
Pohang Univ of Sci & Tech

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