

IPMC-EMIM 액추에이터의 위치 제어

Position Control of IPMC-EMIM Actuator

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Abstract : IPMC-EMIM (Ionic Polymer Metal Composites + 1-ethyl-3-methyl imidazolium trifluoromethane sulfonate, EMIM-TfO) is improved IPMC Actuator. Fabricated by substituting ionic liquid for water in Nafion film, it has many advantages. It has stable dynamic characteristics regardless of the surrounding environment and generate no dehydration.

In this paper, We briefly introduce the procedure of fabrication of IPMC-EMIM first, and simple dynamic characteristics between IPMC and IPMC-EMIM is compared. The control model of IPMC-EMIM and its appropriate controller are established, and Position Control of IPMC-EMIM is also demonstrated.