

## 원판형 분자드래그펌프의 다단 회전자 유동장내 압력분포

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The pumping performance of disk-type molecular drag pump (DMDP) has been investigated experimentally, and numerically, too. The experimented DMDP is consisted of three rotors and four stators. In the DMDP, spiral channels of three rotors are cut on the both upper surface and lower surface of a rotating disk, and the corresponding stator is a planar disk. The experiments are performed in the outlet pressure range of 0.2 - 533 Pa. The pressure of each rotors are measured under the various condition of outlet pressure and throughputs, and nitrogen is used for test gas. At the outlet pressure of 0.2 Pa, the ultimate pressure has been reached to  $1.0 \times 10^{-2}$  Pa. In the numerical study, the pumping characteristics of each rotor are studied for the variation of throughputs in the all rotating channel. Pressure contours and velocity vectors are obtained by the numerical simulation.