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**Dynamic dimer formation between superionic fluorines in $PbF_2$**
NOBUTAKA NAKAMURA, KAZUO TSUMURAYA, Meiji University, Kanagawa, Japan — Recently Tsumuraya *et al.*(J. Phys. Soc. Jpn. 81,055603(2012).) have elucidated the formation of the dynamic dimers in the superionic conductor $\alpha$-CuI with the first principles molecular dynamics (MD) method. They, for the first time in research, confirmed the dimer formation through the analyses the origin of the correlation peaks of the partial pair distribution functions and the partial angle distribution functions. The present study elucidates the dynamic structure of the superionc fluorines in $PbF_2$ crystal with the MD method through identifying the origins of the correlation peaks. The fluorines form the dynamic $32f$-$8c$ and $4b$-$8c$ dimers.

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