

Cattie Replies: In the Comment [1], the interest of approaching the study of solid-solid phase transformation mechanisms on the basis of symmetry-group theoretical considerations is usefully emphasized, according also to recent contributions in the field [2]. In particular, with reference to the orthorhombic mechanism which was proposed and analyzed by us for the high-pressure *B3-B1* phase transition of silicon carbide [3] and zinc sulfide [4], it is pointed out that the space group symmetry of the intermediate structure is higher (*Imm2* rather than *Pmm2*) than claimed in the cited papers. Indeed the body-centering translation was overlooked in our analysis, and we agree that *Imm2* is the appropriate orthorhombic space group to represent the symmetry of the intermediate state. Of course the structural geometry used in all calculations was the correct one, but expressed formally in the lower symmetry *Pmm2* reference, so that the results are not affected.

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- [1] J. M. Perez-Mato, M. Aroyo, C. Capillas, P. Blaha, and K. Schwartz, preceding Comment, *Phys. Rev. Lett.* **90**, 049603 (2003).
- [2] H.T. Stokes and D. M. Hatch, *Phys. Rev. B* **65**, 144114 (2002).
- [3] M. Catti, *Phys. Rev. Lett.* **87**, 035504 (2001).
- [4] M. Catti, *Phys. Rev. B* **65**, 224115 (2002).