

lattice, which upon heating influences the monoclinic to tetragonal transformation temperature (Hammetter *et al.* 1984). In addition, such shock-modified zirconia exhibits enhanced reactivity, reducing the PbO–ZrO₂ reaction temperature (Hankey *et al.* 1982). The shock modification results presented here should prove valuable in assessing the effects of shock-induced chemistry in more complex systems, as well as providing part of the basis for modelling chemical reactions under shock compression (Horie and Kipp 1987).

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