the assignment[12,13,14] of 16 molecules to the coesite cell—that is, the measured density is compatible with the 16 molecule unit and with the *Rm* value calculated. If the coesite cell contained 18 molecules the measured density would be considerably in error (2.90 vs. 3.26) and the *Rm* based on the higher density would be almost 12 per cent lower than for quartz, suggestive of 6-coordinated Si, and of a rutile structure, which clearly coesite does not have.

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[12] TIBOR ZOLTAI and M. J. BUERGER, The crystal structure of coesite, the dense, high pressure form of silica. Z. Kristallogr. **111** (1959) 129—141.

[13] L. S. RAMSDELL, The crystallography of coesite. Am. Min. **40** (1955) 975—982.

[14] FRANK DACHILLE and RUSTUM ROY, High pressure region of the silica isotypes. Z. Kristallogr. **111** (1959) 451—461.