relationship for compounds containing only these elements. For C_aH_b compounds this expression estimates 75.0% of entries with $E \leq 5\%$, the highest value for all families. However, deviations are marked for aromatic compounds in which there are important π–π interactions between the delocalized π-systems (Hunter & Sanders, 1990). On the other hand, for compounds containing N and/or O atoms, the number of entries with $E \leq 5\%$ decreases, possibly due to the existence of C—H···O and N—H···O contacts in the crystal structures (Desiraju, 1991; Taylor & Kennard, 1984), which produces a more compact crystal packing and a decrease in the average volume per atom. This effect also occurs in compounds containing F atoms in which there are contacts of the types C—H···F and N—H···F (Taylor & Kennard, 1982; Emerson, Román, Luque, Guitérrez-Zorrilla & Martínez-Ripoll, 1991). In this latter case the average volume per atom decreases and the more accurate formula is $F_{1/2}$ in which the average volume (12 Å^3) is smaller than that in $F_{1/3}$ (14 Å^3).

This work was supported by Iberdrola SA and UPV/EHU (grant No. 169-310-E180/91). CG-M acknowledges the financial support from the Departamento de Educación del Gobierno Vasco (grant No. BFI90.062 Modalidad BE). We are also indebted to the reviewers for their valuable comments.

References

ALLEN, F. H., KENNARD, O. & TAYLOR, R. (1983). *Acc. Chem. Res.* **16**, 146–153.
DESIRAJU, G. R. (1991). *Acc. Chem. Res.* **24**, 290–296.
EMERSON, K., ROMÁN, P., LUQUE, A., GUTIÉRREZ-ZORRILLA, J. M. & MARTÍNEZ-RIPOLL, M. (1991). *Inorg. Chem.* **30**, 1878–1881.
HUNTER, C. A. & SANDERS, J. K. M. (1990). *J. Am. Chem. Soc.* **112**, 5525–5534.
KEMPSTER, C. J. E. & LIPSON, H. (1972). *Acta Cryst.* B**28**, 3674.
TAYLOR, R. & KENNARD, O. (1982). *J. Am. Chem. Soc.* **104**, 5063–5070.
TAYLOR, R. & KENNARD, O. (1984). *Acc. Chem. Res.* **17**, 320–326.

International Union of Crystallography

Acta Cryst. (1993). B**49**, 386

Access to CIFs archived in Chester

Since 1 January 1992 all structural papers submitted for publication in Sections B and C of *Acta Crystallographica* have had their numerical content checked in Chester and there is an associated CIF for each paper.

The CIF will contain either (i) numerical information and the whole of the text of the paper if the submission was made electronically in CIF format or (ii) numerical information, the Experimental Section and some of the text if the CIF was generated in Chester from a hard-copy submission.

The CIF for each paper is uniquely identified by the CIF reference number which appears in the deposition footnote; this reference number is used as the basis for storing the file in the archive directory.

An email file server is installed in the Chester office and readers who are interested in retrieving CIFs *via* email and who are subscribers to (or whose libraries or institutions are subscribers to) Section C of *Acta Crystallographica* (or Section B as appropriate) are invited to contact the Technical Editor (International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England; teched@iucr.ac.uk) who will supply details on the use of the email file server. CIFs can also be supplied on diskette, if preferred.

This service is provided on an experimental basis and there is no charge.