W0005

Disorder may be a Misnomer. Brahama D. Sharma, PO Box 1626, Pismo Beach, CA 93448-1626.

The assignment of space group may be unambiguous, as centric or non-centric. The centric space group assignment in conjunction with number of units per asymmetric unit some times leads to the conclusion of "disorder" description of the structure.

An interesting example is a very old crystal structure presented by this author in collaboration with Late Jerry Donohue, namely, 2-phenylazulene [1].

This ambiguity became an issue of contention in relation to the proof of the Watson-Crick base pairs by Fourier methods [2].

We will present a proposal that the usual space disorder of whole molecules can be resolved by the well-known proposal of "mosaic" aspects of crystals, by Darwin.

However, the "time" averaging is another factor that must be given serious consideration as was done for N--H...N hydrogen bond by this author [3].

References:

[1] B. D. Sharma, and J. Donohue, (1961) *Nature*, 192, 863. J. Donohue, and B. D. Sharma, (1953) *Nature*, 198, 878
[2] J. Donohue (1970) *Science*, 167, 1700, J. Donohue (1970) *Nature*, 227, 317
[3] Brahama D. Sharma, American Crystallographic Association Abstracts of Papers, 5, (1967).