

Chiral Discrimination in the solid state

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This lecture aims at conveying two messages:

There are clusters of conglomerates: the well accepted 5 to 10% probability of conglomerates is actually deceptive as in some series of structurally related derivatives a family of 10 chiral molecules can crystallize as stable conglomerates. By contrast, in some other series of chiral molecules it is hard to find any (e.g. Baclofen 1 out of 117 salt derivatives).

Some pro-chiral molecules can crystallize in one of the 65 Sohncke space groups and therefore predisposes the structurally related chiral derivatives to crystallize as stable conglomerate. There are some pockets which can be filled with various substituents so that the main features of the packing are preserved.