

Phasing Strategies II - Molecular Replacement

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The phase problem still remains a challenge in X-ray crystallography. The growth of the database of known structures often now makes it possible to solve the phase problem without resorting to experimental phasing methods. In this molecular replacement method the problem is solved by calculating phases from a similar structure placed in the position of the unknown molecule in the crystallographic unit cell. The algorithms underlying the method will be discussed along with recent developments designed to address challenging molecular replacement cases.