



Fig. 416.01 *Tetrahedral Precession of Closest Packed Spheres:*

- A. Two pairs of seven-ball, triangular sets of closest packed spheres precess in 60 degree twist to associate as the cube. This 14-sphere cube is the minimum structural cube which may be produced by closest-packed spheres. Eight spheres will not close-pack as a cube and are utterly unstable.
- B. When two sets of two tangent balls are self-interprecessed into closest packing, a half-circle inter-rotation effect occurs. The resulting figure is the tetrahedron.
- C. The two-frequency (three-sphere-to-an-edge) square-centered tetrahedron may also be formed through one-quarter-circle precessional action.