**HEXAGONAL SYMMETRY**

The resulting cross section reveals a very familiar hexagonal symmetry for the Apollonian gaskets, which appear in many other mathematical contexts. The Apollonian gaskets have a remarkable property: the ratio of the areas of any two adjacent circles is a constant, equal to the square of the ratio of their radii. This property is a consequence of the fact that the gaskets are constructed by repeatedly removing the circumcircle of the triangle formed by the centers of the three touching circles. The resulting circles are then replaced by the Apollonian gaskets, which are similar to the original gaskets. This process continues ad infinitum, and the resulting pattern is a fractal, with a self-similar structure that repeats at different scales. The hexagonal symmetry of the Apollonian gaskets is a consequence of the fact that the circles are tangent to each other at the points of contact, and the tangency points form a hexagonal lattice. This lattice is a consequence of the fact that the circles are tangent to the sides of the equilateral triangle formed by the centers of the three touching circles. The hexagonal symmetry of the Apollonian gaskets is a consequence of the fact that the circles are tangent to each other at the points of contact, and the tangency points form a hexagonal lattice. This lattice is a consequence of the fact that the circles are tangent to the sides of the equilateral triangle formed by the centers of the three touching circles.