

1128-15-254

Carlee Ann Walker* (carlee.walker@wallawalla.edu), College Place, WA 99324.

Determination of Character Table for D_{3h} Point Group.

Chemists have long been interested in character tables to determine bonding tendencies and vibrational modes of molecular compounds. Here, special attention is given to borane, a molecule with the symmetries of a triangular prism. By considering conjugacy classes of the symmetric linear transformations of the molecule and the Great Orthogonality theorem, the irreducible representations of the character table can be found. Implications of these calculations are also explored. (Received February 27, 2017)