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Ferris State College
Kalamazoo, MI

REPORT ON 1981 MACTLAC MODEL DISCUSSION SESSION

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1. Dr. Larson asked if anyone had ideas to present. None volunteered.
2. He then showed examples of additions to enhance the utility of available modeling systems. For example, printed pi-bond patterns, stapled to plastic double bond units, show the orbital symmetry in benzene and the pi-orbital extensions of conjugated systems. Similarly, ethylene ~~models~~ model units can be converted to effective amide plane units, for use in lecture-demo. size alpha helix models. Slotted, styrofoam Balls, attached to simple "Paper Stereomodel" alkene units effectively demonstrate cis-trans isomerism.
3. Dr. Larson also traced the development of his "Paper Stereomodels" from folded pyranose rings and the "discovery" of the well-used (and patented) "tetrahedral fold" (J.Chem.Ed., 1965). He led the discussion group through his current "student" exercise in folding a paper, with four pyranose rings printed on it, to make simple conformational models of alternate D- and L-configuration beta-glucose models (all projecting groups equatorial), to introduce enantiomeric molecular chirality. A simple chiral center analysis was also shown.
4. The use of marked index cards to follow the stereochemistry of cis- and trans- additions to cis- and trans-alkenes was also demonstrated.
5. The discussion group was also introduced to some polyhedra "discovery" exercises with simple "60° Cubelts", and the extension of this modeling system to show octahedral (6-coordinate) isomerism.
6. The first hour presentation ended with reminder by one experienced participant of the simple "folded-envelope" approach to tetrahedra.
7. A second hour informal discussion of "special interest" models followed, as other persons came to view the models.