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## Menthyl Substituted Phosphorus Compounds: Synthesis, Structures and NMR Studies

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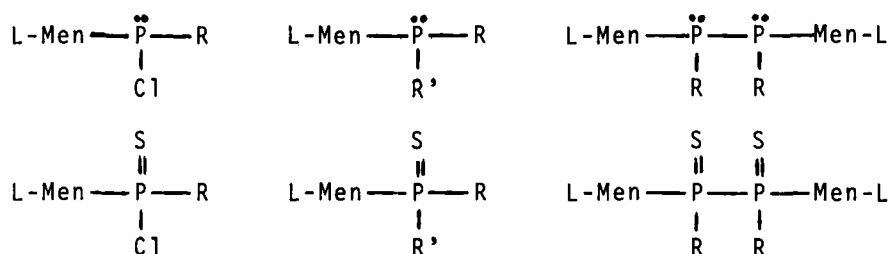
# Menthyl Substituted Phosphorus Compounds: Synthesis, Structures and NMR Studies

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Menthyl-substituted phosphorus compounds were synthesized:



(R = CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, i-C<sub>3</sub>H<sub>7</sub>, t-C<sub>4</sub>H<sub>9</sub>, C<sub>6</sub>H<sub>5</sub>, L-Men, D-Men; Men = Menthyl)

H-1- and C-13-NMR-spectra were treated by one- and two-dimensional methods to obtain stereospecific shift- and coupling-parameters.

Problems of chiral, pseudo-chiral, pro-chiral and pseudo-pro-chiral compounds are discussed. Aromatic-ring-current-effects were calculated based on theories of Johnson/Bovey and Haigh/Mallion. Novel computer programs JOBO and HAMA were designed for convenient evaluation of ring-current-effects. The methods are demonstrated comparing Mosher's menthyl- und neo-menthylphosphineoxides

L-Men(C<sub>6</sub>H<sub>5</sub>)(CH<sub>3</sub>)PO and neo-Men(C<sub>6</sub>H<sub>5</sub>)(CH<sub>3</sub>)PO R<sub>(P)</sub> and S<sub>(P)</sub> configurations. The programs may be obtained from the authors on request.