## P4926: OBSERVATION OF THE $C_6H_7$ RADICAL IN AN ARGON MATRIX USING MATRIX ISOLATION INFRARED SPECTROSCOPY

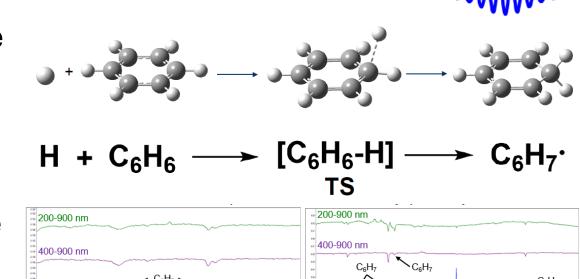
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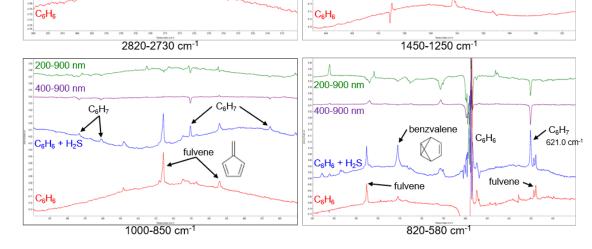
C<sub>6</sub>H<sub>6</sub> + H<sub>2</sub>S

- C<sub>6</sub>H<sub>7</sub> radical observed in an Ar matrix by the reaction of H atoms with C<sub>6</sub>H<sub>6</sub>
- H atoms produced by VUV photolysis and microwave discharge of H<sub>2</sub>S.
- Larger C<sub>6</sub>H<sub>7</sub> yield with microwave discharge
- Good agreement with Xe and p-H<sub>2</sub> matrices
- B3PW91 method gives best agreement with experiment
- C<sub>6</sub>D<sub>6</sub>H radical also observed in an Ar matrix by the reaction of H atoms with C<sub>6</sub>D<sub>6</sub>









C<sub>6</sub>H<sub>6</sub> + H<sub>2</sub>S