

#

EHT

Judging Dept.

Bin Xiang

Student

EHT

4

Lei Zhu

Dept or Program Years in program

Mentor

Absorption cross sections of E,E-2,4-hexadienedial at 248 nm, and in the 290-430 nm region, and photolysis study at 248, 308 and 351 nm

Author (s)

Bin Xiang, Lei Zhu

We have measured the absorption cross sections of E,E-2,4-hexadienedial at 248 nm and in the 290–430 nm region. The HCO product channel following 248, 308, and 351 nm photolysis of E,E-2,4-hexadienedial was examined. The HCO radical was only observed at 248 nm, with quantum yield of 0.014 (absolute uncertainty in HCO yield is 86%). Estimated upper limits for the HCO yields at 308 and 351 nm are 11% and 9%. Acetylene, ketene, butadiene (all at 248 nm), CO (248 and 308 nm) have been detected as photolysis products of E,E-2,4-hexadienedial in 20 Torr of nitrogen. Their yields have been estimated.