

# **Supporting Information**

**for**

## **Intramolecular hydroxycarbene C–H-insertion: The curious case of (o-methoxy)phenylhydroxycarbene**

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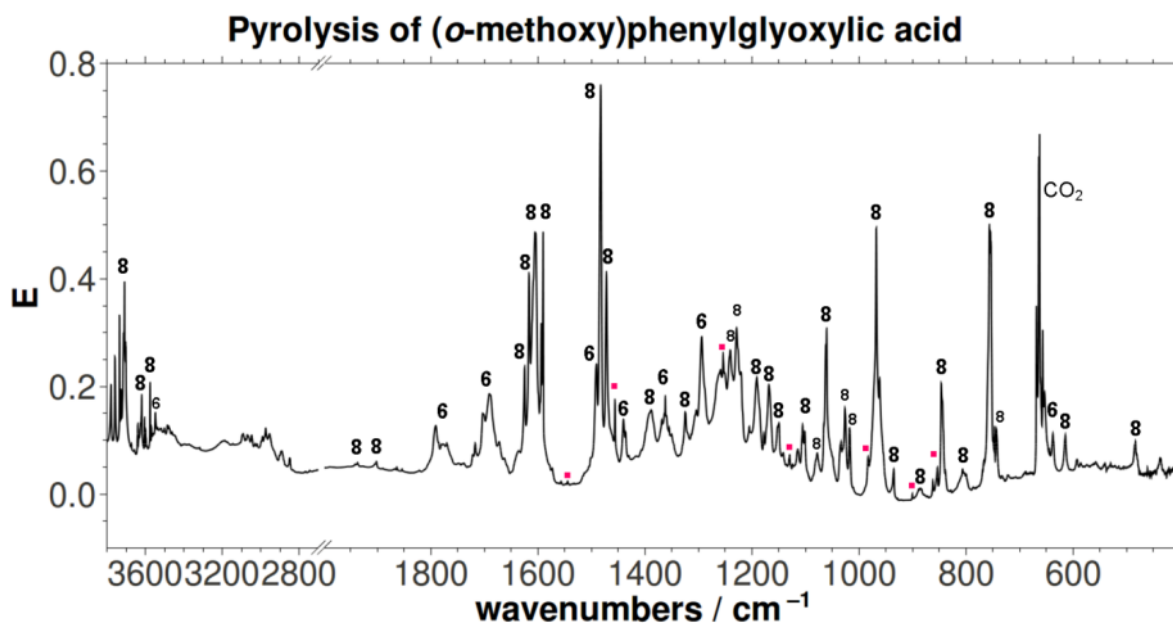
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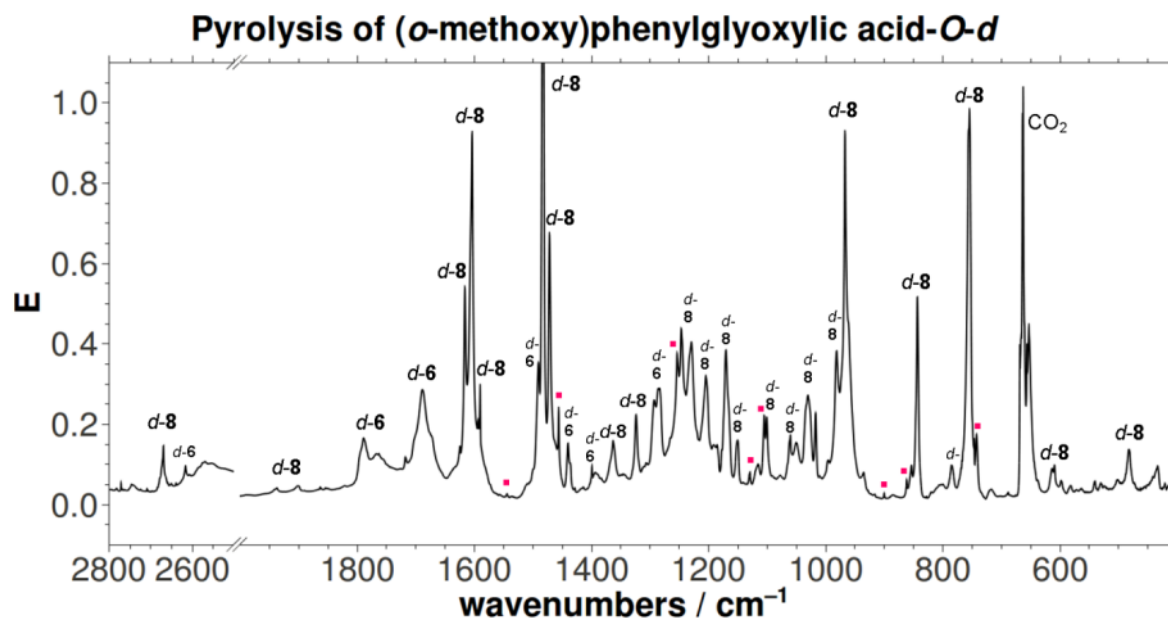
Hans Peter Reisenauer - [Hans.P.Reisenauer@org.chemie.uni-giessen.de](mailto:Hans.P.Reisenauer@org.chemie.uni-giessen.de)

Peter R. Schreiner\* - [prs@org.chemie.uni-giessen.de](mailto:prs@org.chemie.uni-giessen.de)

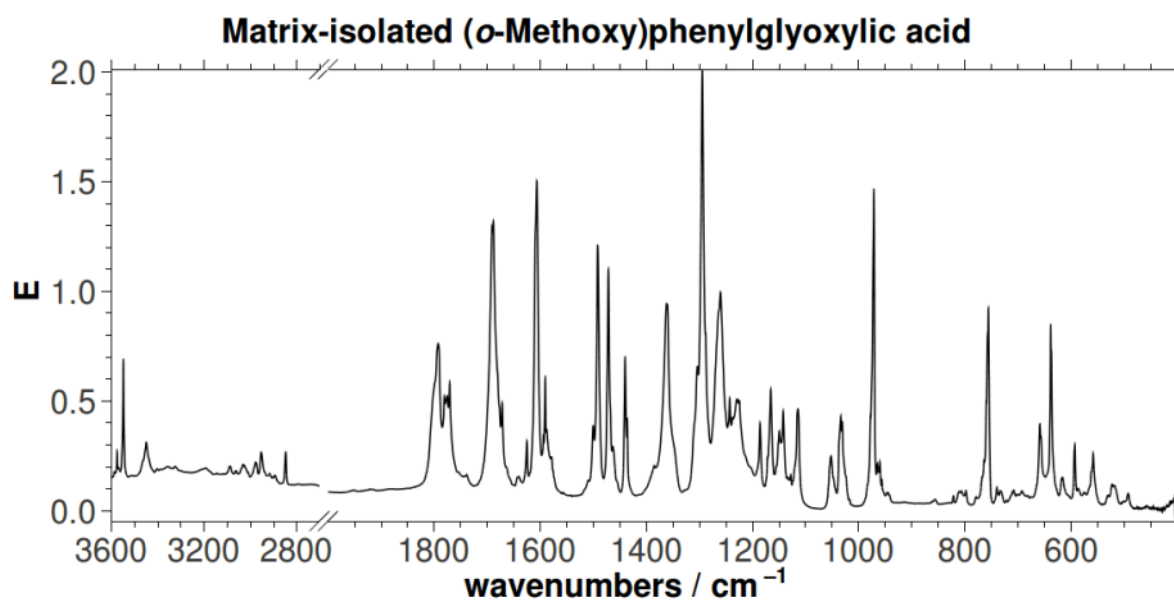
### **Full matrix isolation spectra**



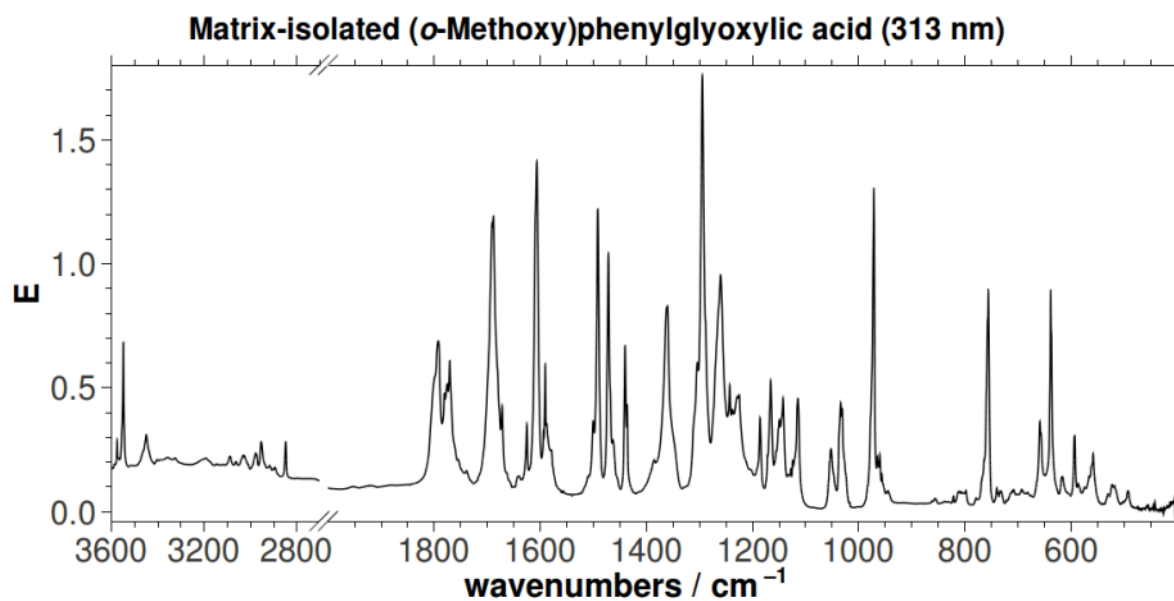
**Figure S1:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (600 °C) of **5**.  
Traces of **9** are indicated by magenta dots.



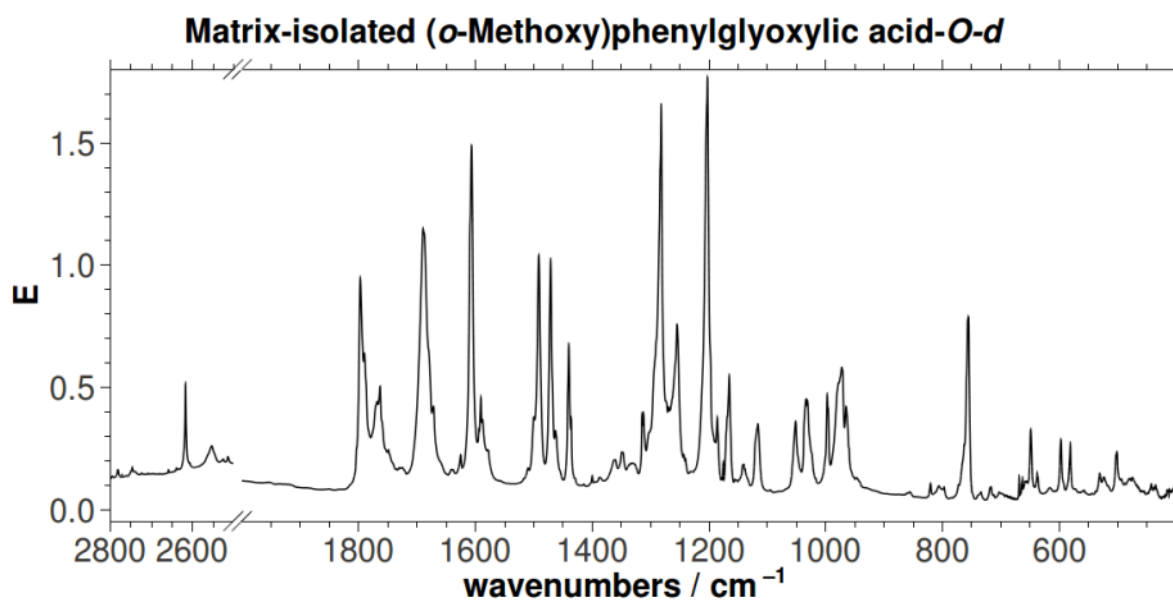
**Figure S2:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (600 °C) of *d*-**5**.  
Traces of **9** are indicated by magenta dots.



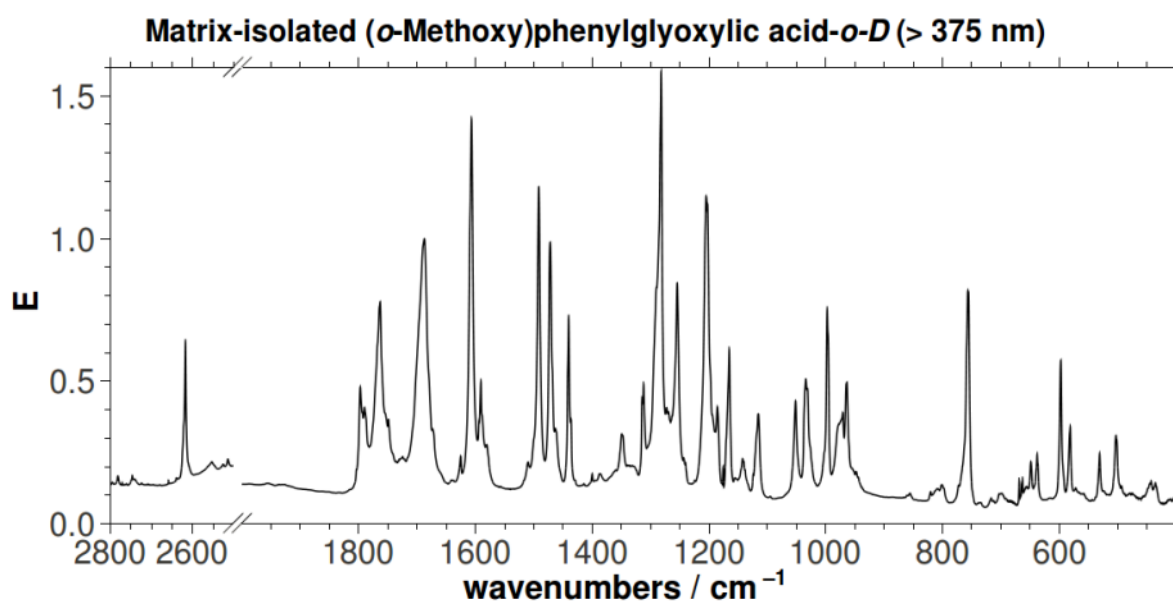
**Figure S3:** Unmodified matrix IR spectrum (Ar, 11 K) of **6**.



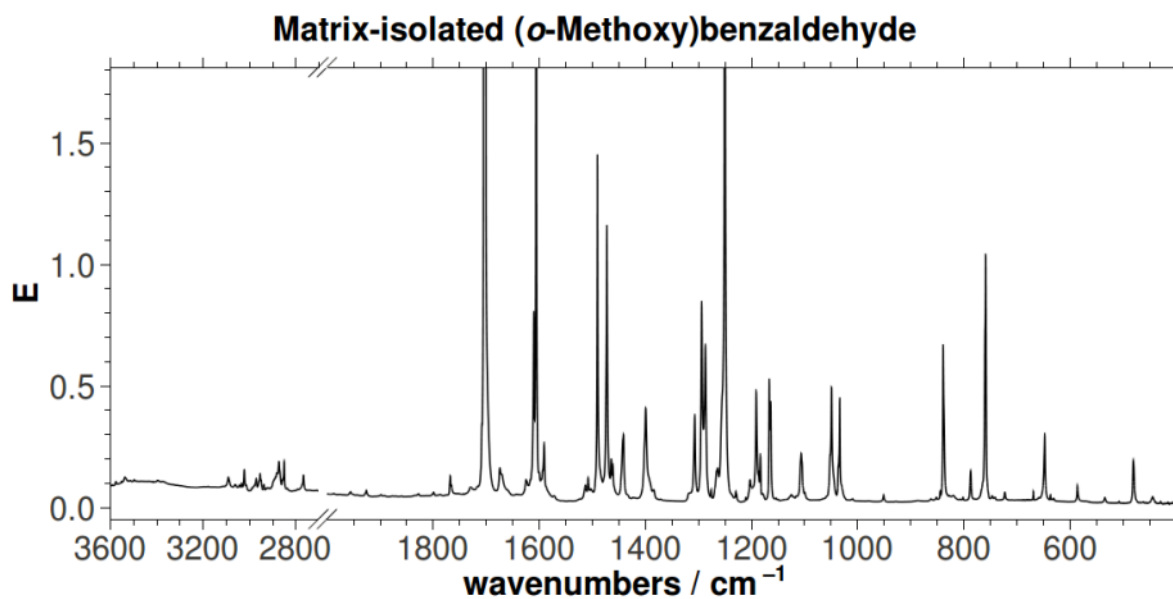
**Figure S4:** Unmodified matrix IR spectrum (Ar, 11 K) of **6** after irradiation at 313 nm.



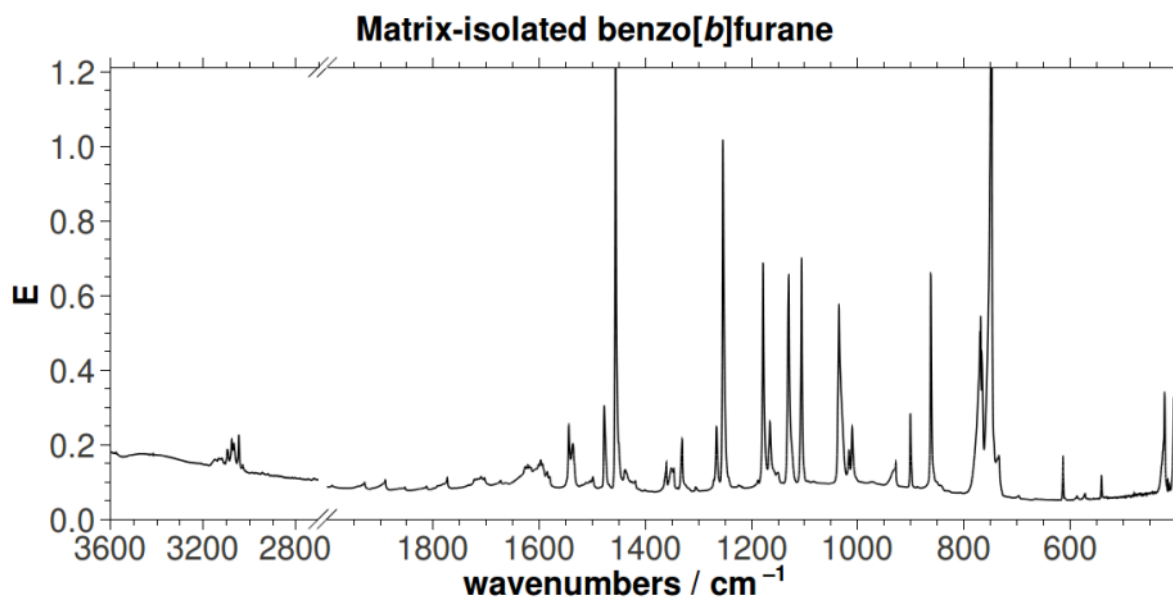
**Figure S5:** Unmodified matrix IR spectrum (Ar, 11 K) of *d-6*.



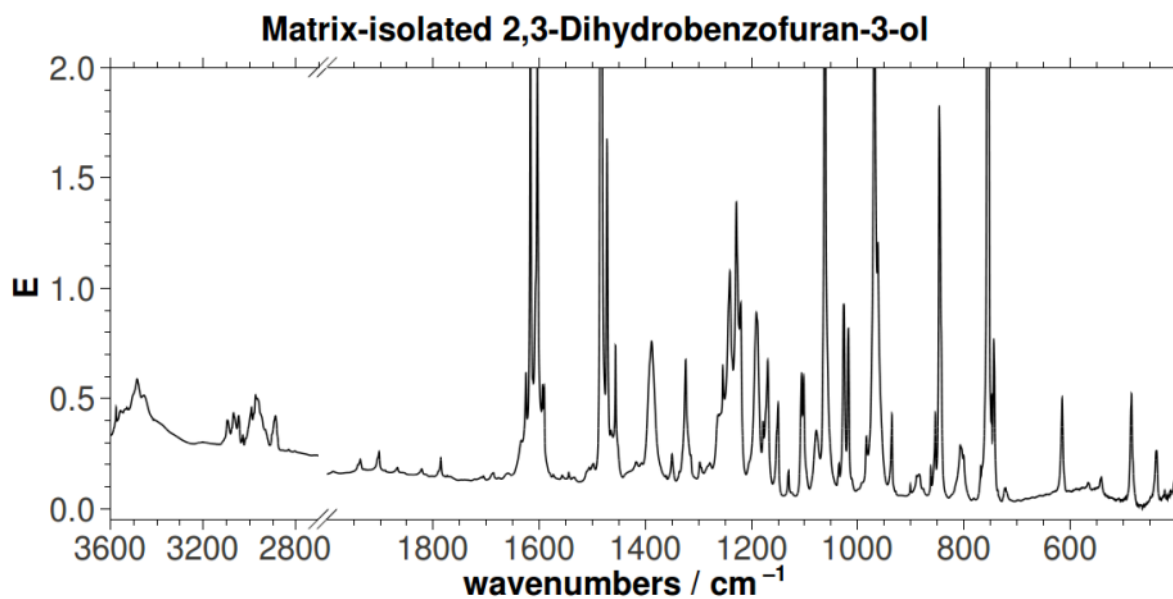
**Figure S6:** Unmodified matrix IR spectrum (Ar, 11 K) of *d-6* after irradiation with wavelengths greater than 375 nm.



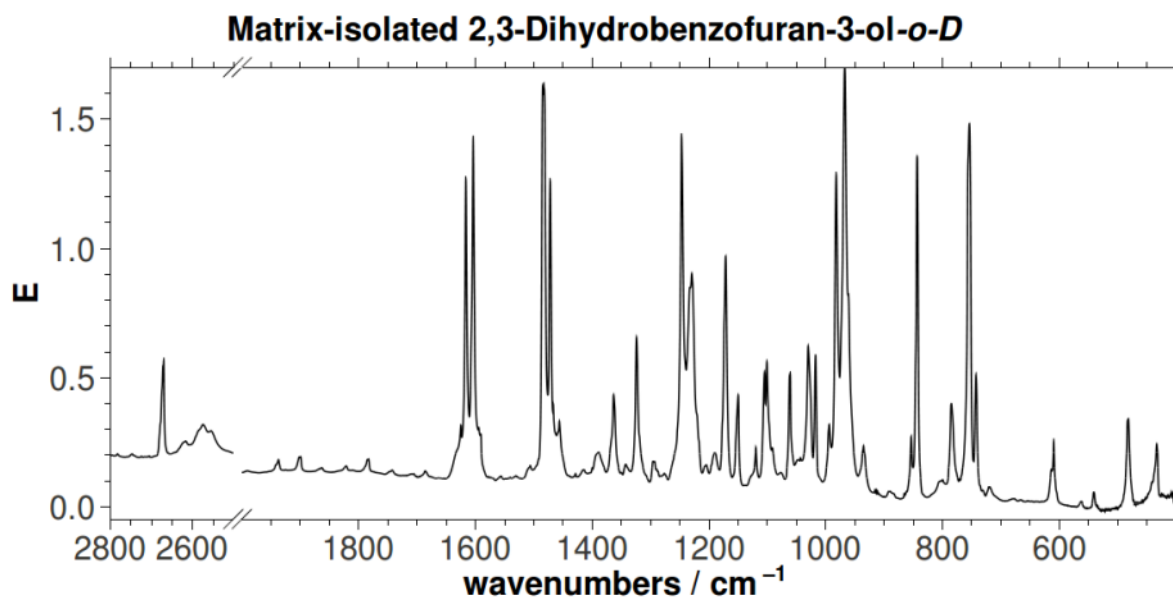
**Figure S7:** Unmodified matrix IR spectrum (Ar, 11 K) of **7**.



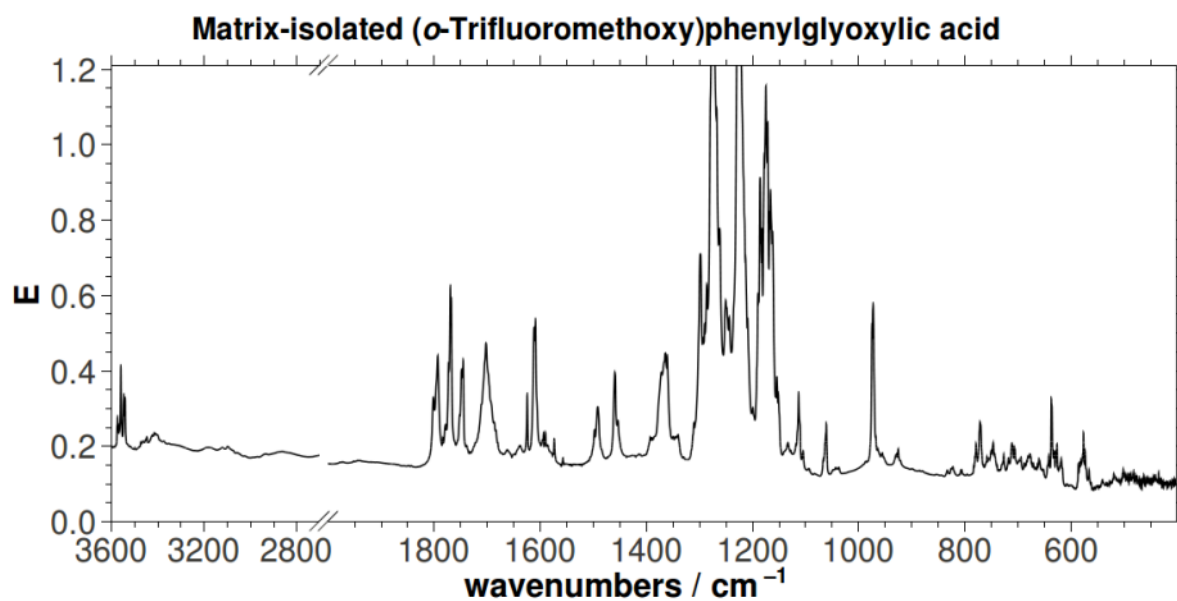
**Figure S8:** Unmodified matrix IR spectrum (Ar, 11 K) of **9**.



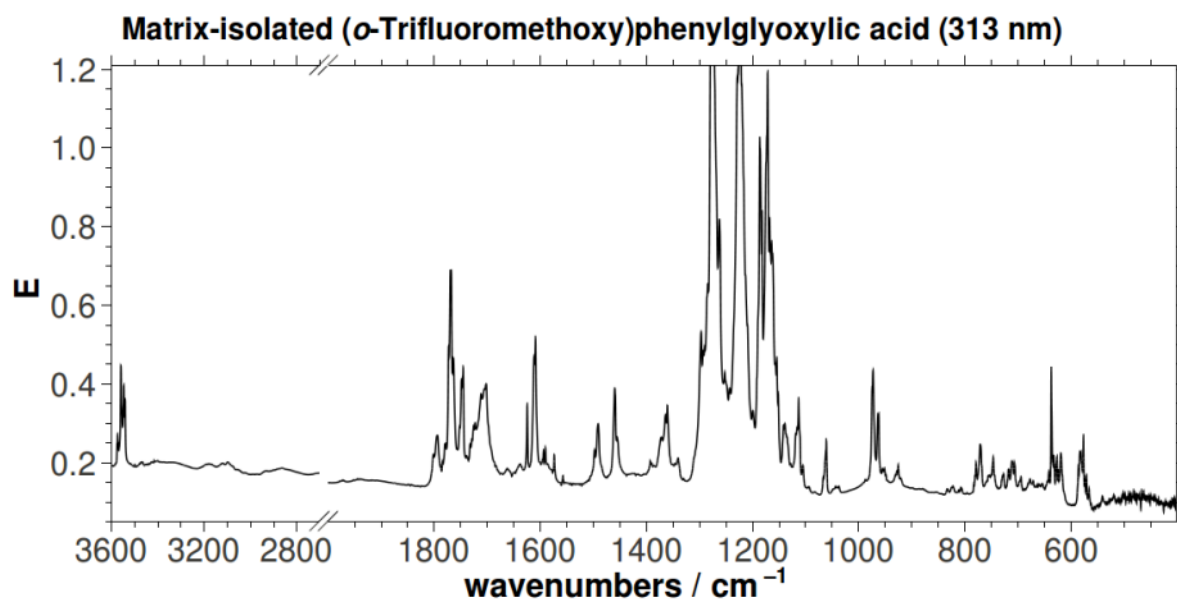
**Figure S9:** Unmodified matrix IR spectrum (Ar, 11 K) of **8**.



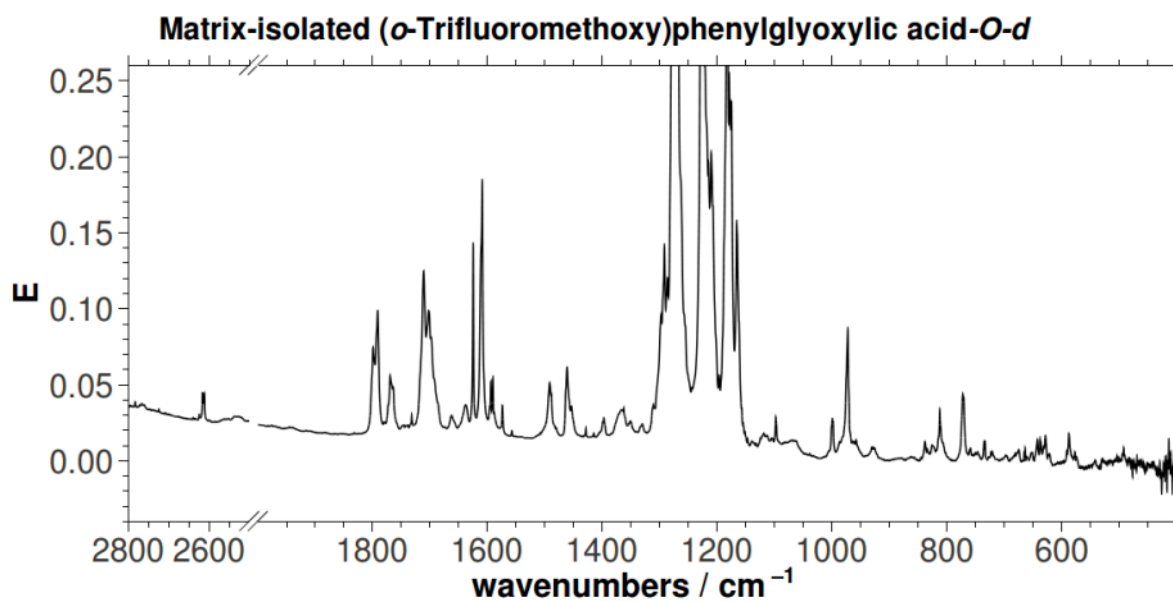
**Figure S10:** Unmodified matrix IR spectrum (Ar, 11 K) of *d*-**8**.



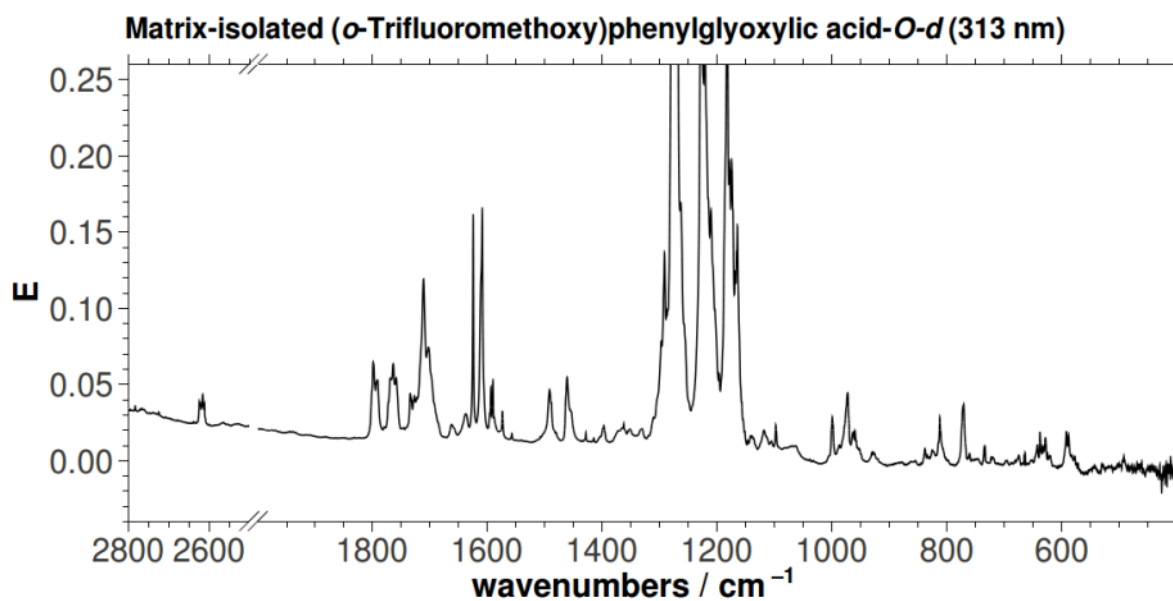
**Figure S11:** Unmodified matrix IR spectrum (Ar, 11 K) of **10**.



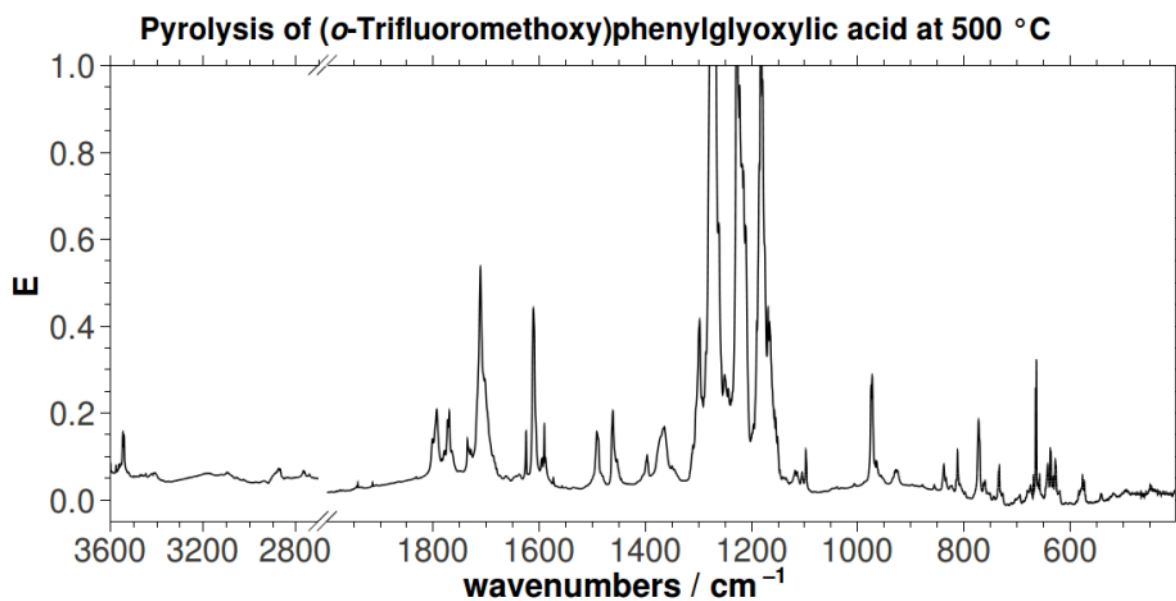
**Figure S12:** Unmodified matrix IR spectrum (Ar, 11 K) of **10** after irradiation at 313 nm.



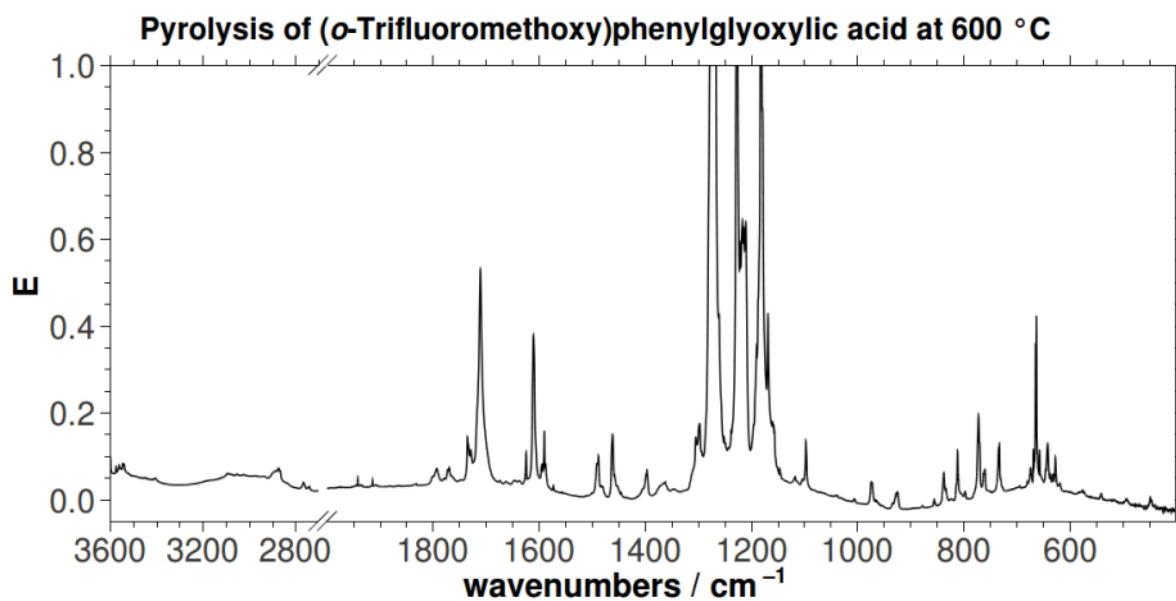
**Figure S13:** Unmodified matrix IR spectrum (Ar, 11 K) of *d*-10.



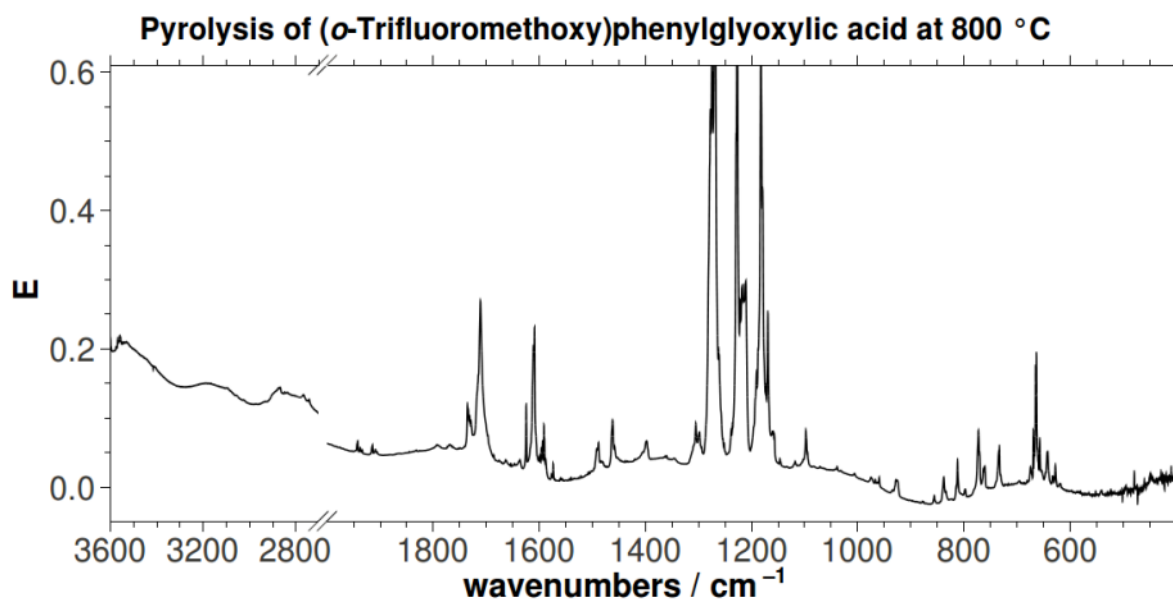
**Figure S14:** Unmodified matrix IR spectrum (Ar, 11 K) of *d*-10 after irradiation at 313 nm.



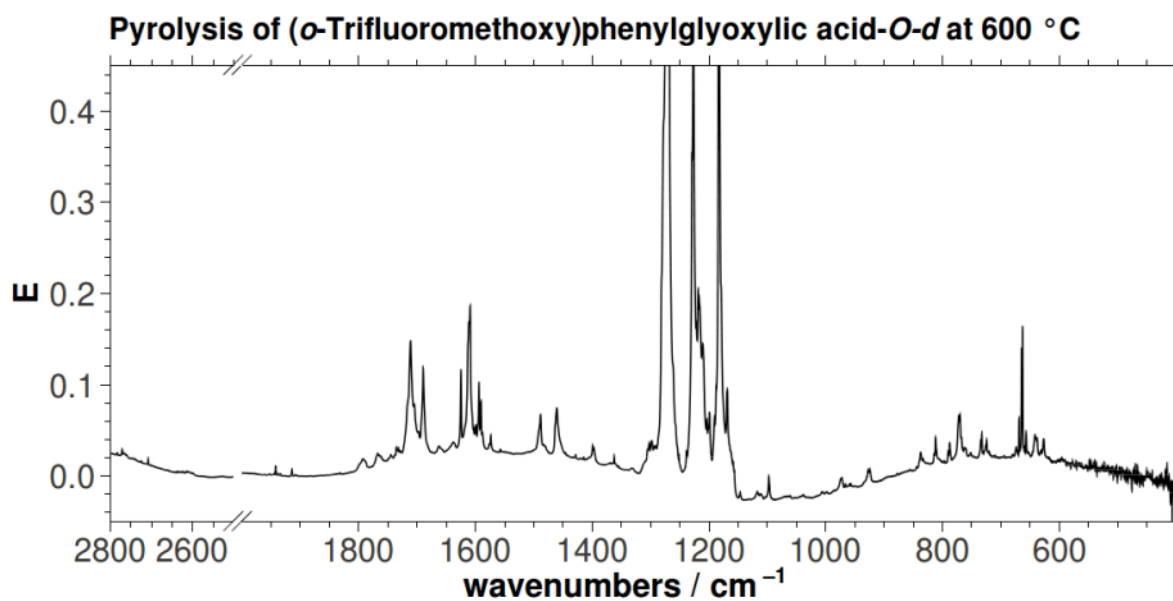
**Figure S15:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (500 °C) of **10**.



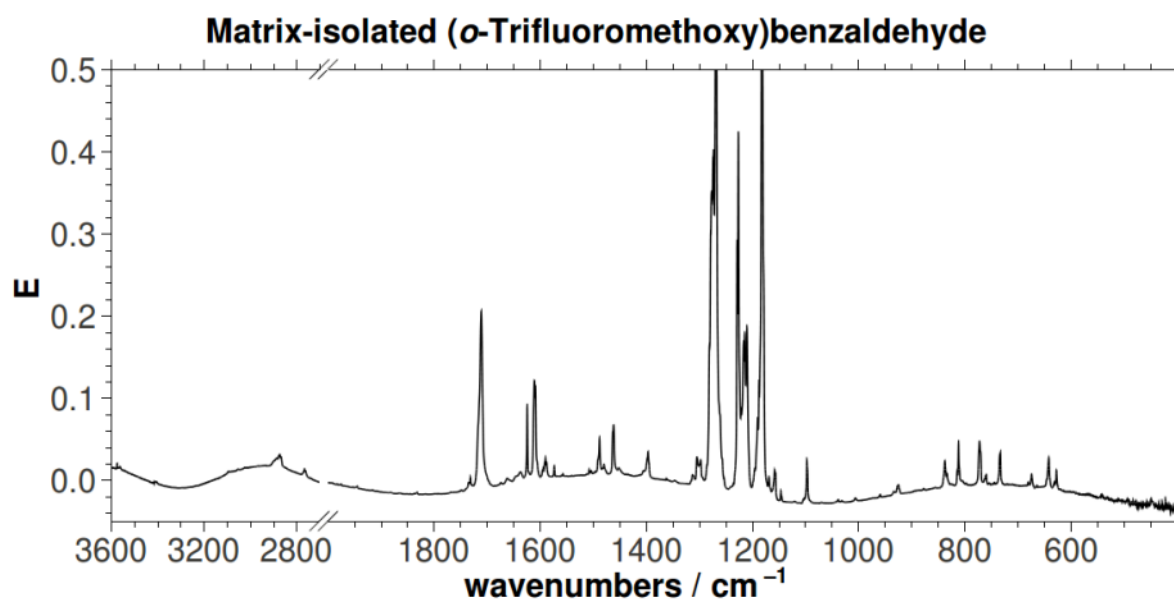
**Figure S16:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (600 °C) of **10**.



**Figure S17:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (800 °C) of **10**.



**Figure S18:** Unmodified matrix IR spectrum (Ar, 11 K) of the pyrolysis (600 °C) of *d*-**10**.



**Figure S19:** Unmodified matrix IR spectrum (Ar, 11 K) of **11**.