**Photo-Anionic Polymerization Initiators**

Sensitive to i-line Irradiation

- **Advantages**
  - Highly efficient photodecarboxylation reaction (quantum yield: $\varphi = \text{ca.} \ 0.64$) and free strong base generation proceed through UV light irradiation (254 nm or 365 nm (i-line))
  - Generate the following strong bases, [O0396] TBD (pKa=26.03), [O0447] DBN (pKa=23.79), [O0448] DBU (pKa=24.34) (*each pKa in Acetonitrile)

### Applications

**Photo-Anionic Polymerization of Epoxide Monomers**

$\text{O0396 or O0447 or O0448}$

$$\text{hv} \rightarrow \text{CO}_2$$

**Photo-Crosslinking of Epoxide Monomer and Thiol Monomer**

$\text{O0396 or O0447 or O0448}$

$$\text{hv} \rightarrow \text{CO}_2$$

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### References


### Applications

- Photo-Anionic Polymerization of Epoxide Monomers
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### Initiators

- [O0396] TBD 1g
- [O0447] DBN 1g
- [O0448] DBU 1g

These products were commercialized by collaboration with Prof. Koji Arimitsu.

For further information please refer to our website at www.TCIchemicals.com.