



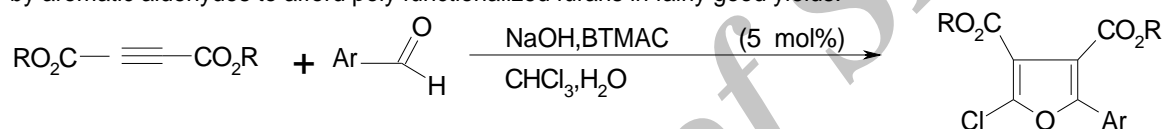
## Three-component reaction between dichlorocarbene, acetylenic, esters and aromatic aldehyds Synthesis of functionalized furans

Navid Rostami

Department of Chemistry, Islamic Azad University, Mianeh Branch, Iran

### Abstract

The zwitterionic intermediate created from the reaction between dichlorocarbene and acetylenic esters is trapped by aromatic aldehydes to afford poly functionalized furans in fairly good yields.



1	R	2	Ar	3	R	Ar	Yield%
a	CH <sub>3</sub>	a	p-Cl-C <sub>6</sub> H <sub>4</sub>	a	CH <sub>3</sub>	p-Cl-C <sub>6</sub> H <sub>4</sub>	75%
b	CH <sub>2</sub> CH <sub>3</sub>	b	p-Br-C <sub>6</sub> H <sub>4</sub>	b	CH <sub>3</sub>	p-Br-C <sub>6</sub> H <sub>4</sub>	68%
		c	p-CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>	c	CH <sub>3</sub>	p-CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>	75%
				d	CH <sub>2</sub> CH <sub>3</sub>	p-Cl-C <sub>6</sub> H <sub>4</sub>	83%
				e	CH <sub>2</sub> CH <sub>3</sub>	p-CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>	81%

**Keywords:** aromatic aldehyds, acetylenic esters, dichlorocarbene