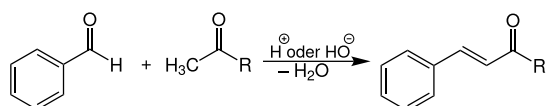


# Claisen-Schmidt Condensation of Aldehydes and Ketones in NaOH



Keywords: Claisen-Schmidt Condensation, Synthesis, Aldol Condensation

## Summary

Claisen-Schmidt reaction at 25 ° C isothermal under magnetic stirring (700 rpm) in aqueous solution for 24 and 48 hours.

## Equipment

Item #	Description
8053 000 100	XELSIUS Basic Unit, Software Version: 2.44
8053 000 201	Reflux Condenser Module
8053 000 202	HV Vials Starter Kit, 1 - 30 ml

## Chemicals

	Description
2 mmol	Aldehyde, e.g. Benzaldehyde - 98%, CAS: 100-52-7
2,5 mmol	Ketone, e.g. Acetophenone - 99%, CAS: 98-86-2
10 ml	NaOH - 2N, CAS: 1310-73-2

## Methode

Claisen-Schmidt reaction at 25 ° C under magnetic stirring (700 rpm) in solution in aqueous solution for 24 and 48 hours.

Add 2.5 mmol of Ketones provides as liquid and 2.0 mml of Aldehydes in reaction vessel. Add 10 ml of NaOH (2N). Extraction of the product were performed via liquid extraction with CH<sub>2</sub>Cl<sub>2</sub>.

## Best practice working with Xelsius:

Best results (quantitative conversion) achieved in 24h.

### References:

L. Claisen und A. Claparède: Condensationen von Ketonen mit Aldehyden  
In: Ber. Dtsch. Chem. Ges. 14, 1881, S. 2460-2468, doi:10.1002/cber.188101402192.

J. Gustav Schmidt: Ueber die Einwirkung von Aceton auf Furfurol und auf Bittermandelöl bei Gegenwart von Alkalilauge  
In: Ber. Dtsch. Chem. Ges. 14, 1881, S. 1459-1461, doi:10.1002/cber.188101401306.

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