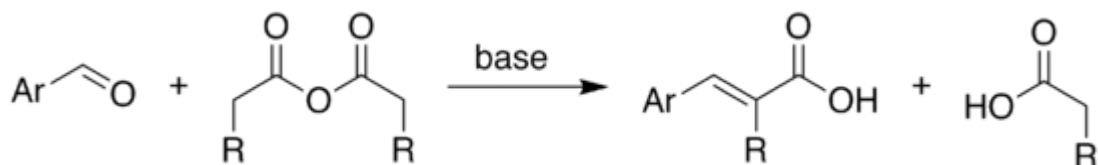


# Perkin reaction

The **Perkin reaction** is an organic reaction developed by English chemist William Henry Perkin that is used to make cinnamic acids. It gives an  $\alpha,\beta$ -unsaturated aromatic acid by the aldol condensation of an aromatic aldehyde and an acid anhydride, in the presence of an alkali salt of the acid.<sup>[1][2]</sup> The alkali salt acts as a base catalyst, and other bases can be used instead.<sup>[3]</sup>

Perkin reaction	
Named after	<u>William Henry Perkin</u>
Reaction type	<u>Condensation reaction</u>
Reaction	
<u>Aromatic aldehyde</u> + <u>Aliphatic Acid anhydride</u> + <u>Alkali salt of the acid</u> ↓ <u>Cinnamic acid derivatives</u>	
Identifiers	
RSC ontology ID	<u>RXNO:0000003</u> ✓
✓(what is this?) (verify) ( <a href="https://en.wikipedia.org/w/index.php?&amp;diff=c&amp;ur&amp;oldid=342064841">https://en.wikipedia.org/w/index.php?&amp;diff=c&amp;ur&amp;oldid=342064841</a> )	



Several reviews have been written.<sup>[4][5][6]</sup>

## Contents

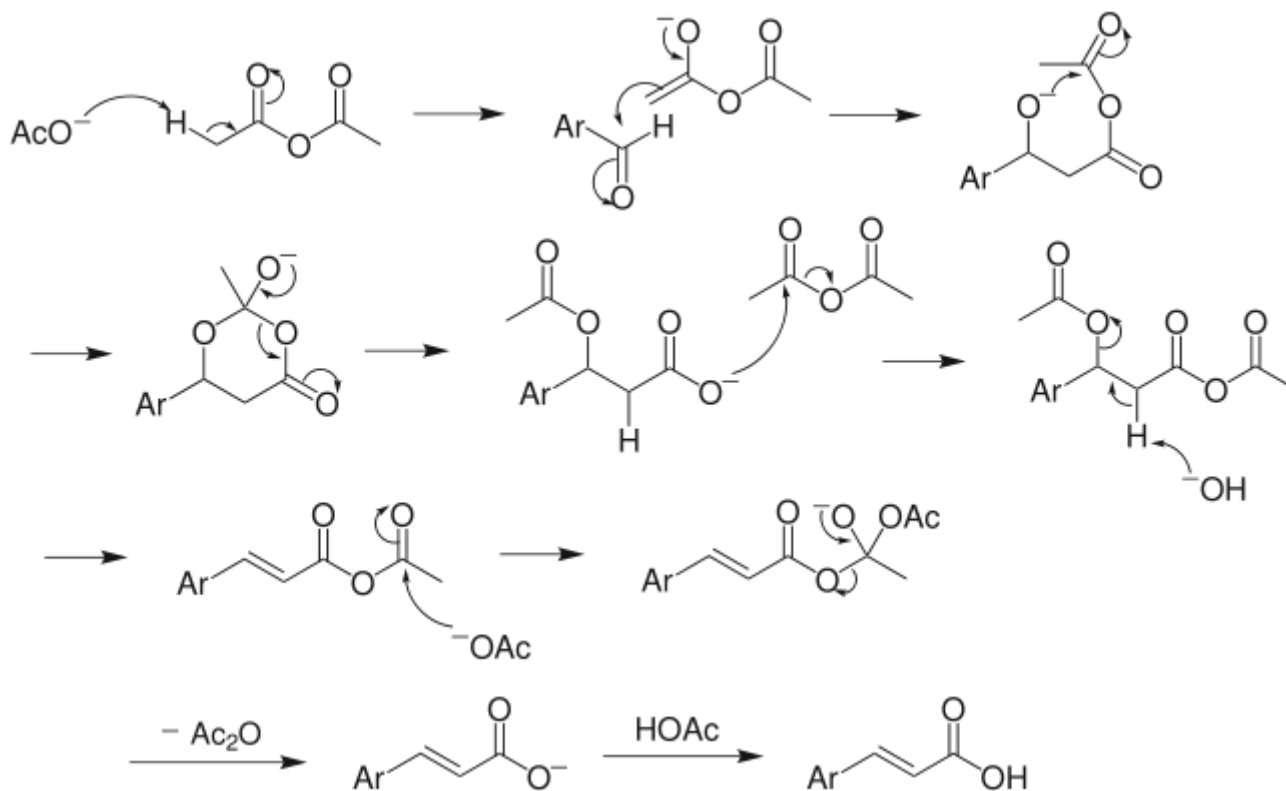
[Reaction mechanism](#)

[Applications](#)

[See also](#)

[References](#)

## Reaction mechanism



The above mechanism is not universally accepted, as several other versions exist, including decarboxylation without acetic group transfer.<sup>[7]</sup>

## Applications

- One notable application for the Perkin reaction is in the laboratory synthesis of the phytoestrogenic stilbene resveratrol (c.f. fo-ti).<sup>[8]</sup>

## See also

- Erlenmeyer–Plöchl azlactone and amino-acid synthesis
- Stobbe condensation
- Pechmann condensation

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