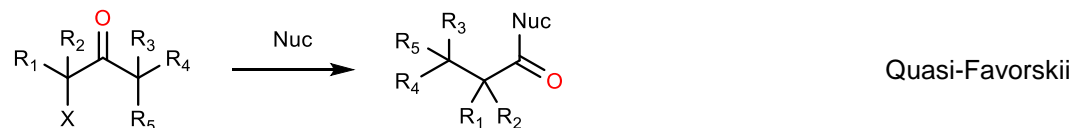
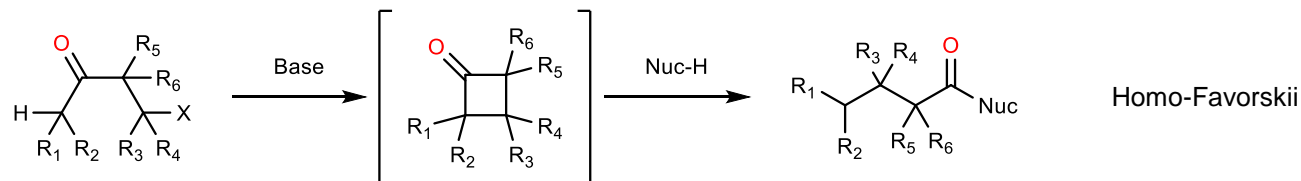
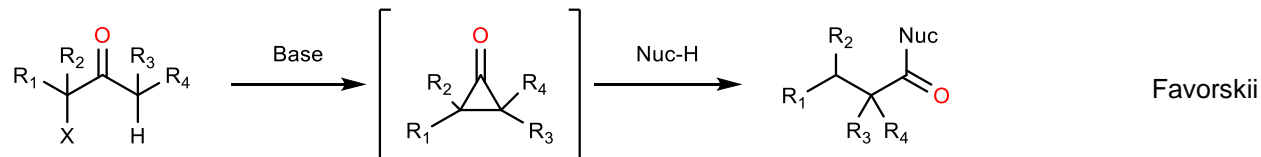


Introduction



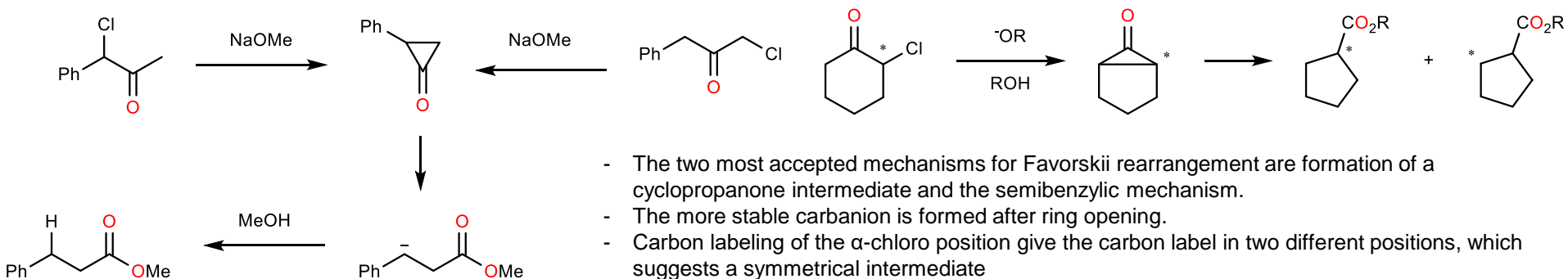
Alexei Favorskii



- Frit reported by Alexei Favorskii in 1892.
- Favorskii occurs with α -halo ketones and proceeds via a cyclopropanone intermediate.
- Homo-Favorskii occurs with β -halo ketone and proceeds via a cyclobutanone intermediate.
- Quasi Favorskii occurs when no enolizable protons are present.

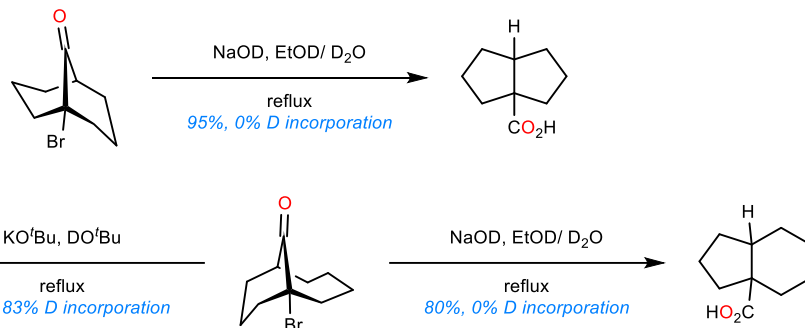
Favorskii, A. *Zh. Rus. Fiz.-Khim. O-va* **1892**, 24, 254.

Mechanism



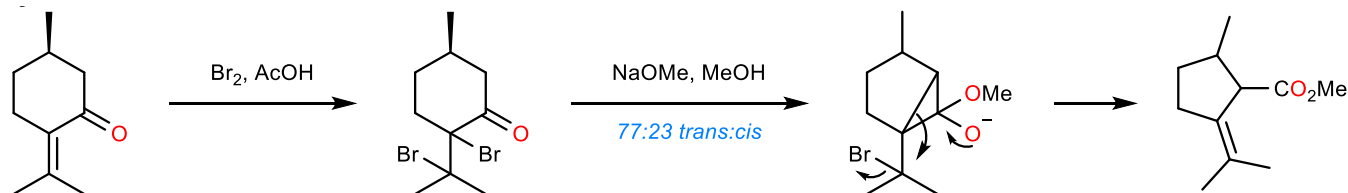
Bordwell, F. *J. Am. Chem. Soc.* **1969**, 91, 2087-2093 <https://doi.org/10.1021/ja01036a037>
Lofffield, R. *J. Am. Chem. Soc.* **1950**, 72, 632-633 <https://doi.org/10.1021/ja01157a515>

Quasi-Favorskii vs Favorskii

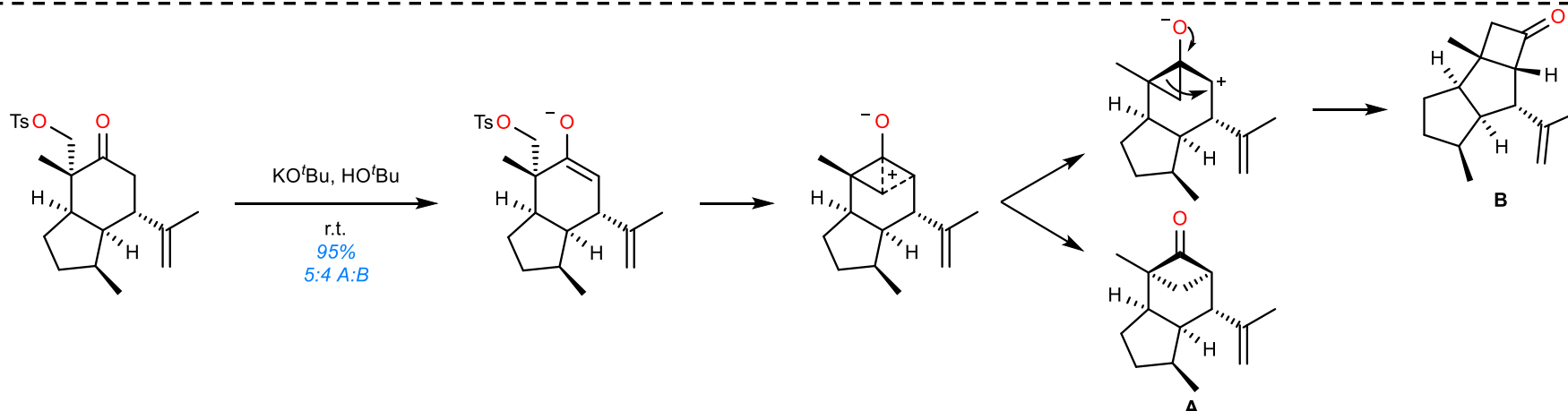


- Quasi-Favorskii proceeds by a semi-benzylic mechanism.
- Typically occurs when there are no enolizable protons or if the resulting cyclopropanone intermediate is too strained.
- No deuterium incorporation suggests a semi-benzylic mechanism.
- It is possible to switch between the cyclopropanone and semi-benzylic mechanism by changing the conditions.

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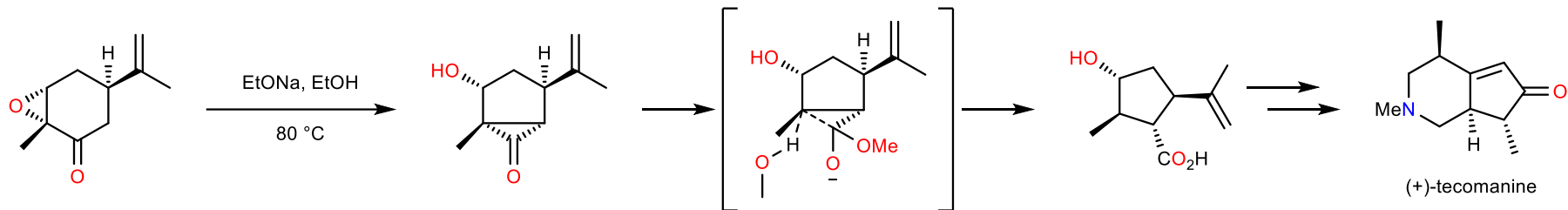


Wolinsky, J. *J. Org. Chem.* **1965**, *30*, 41-43. <https://doi.org/10.1021/jo01012a008>

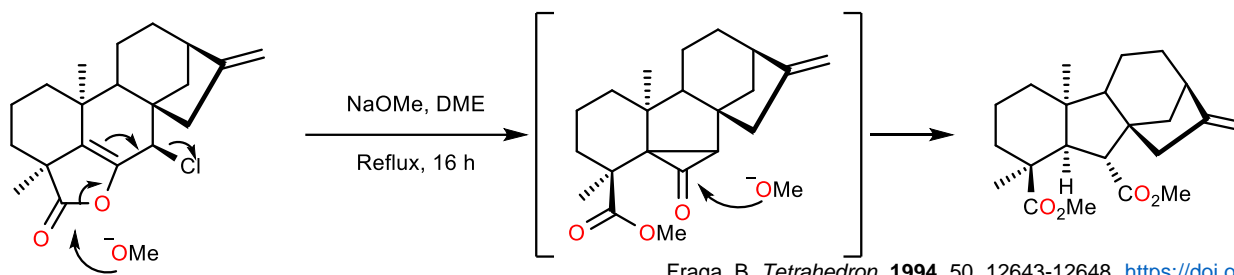


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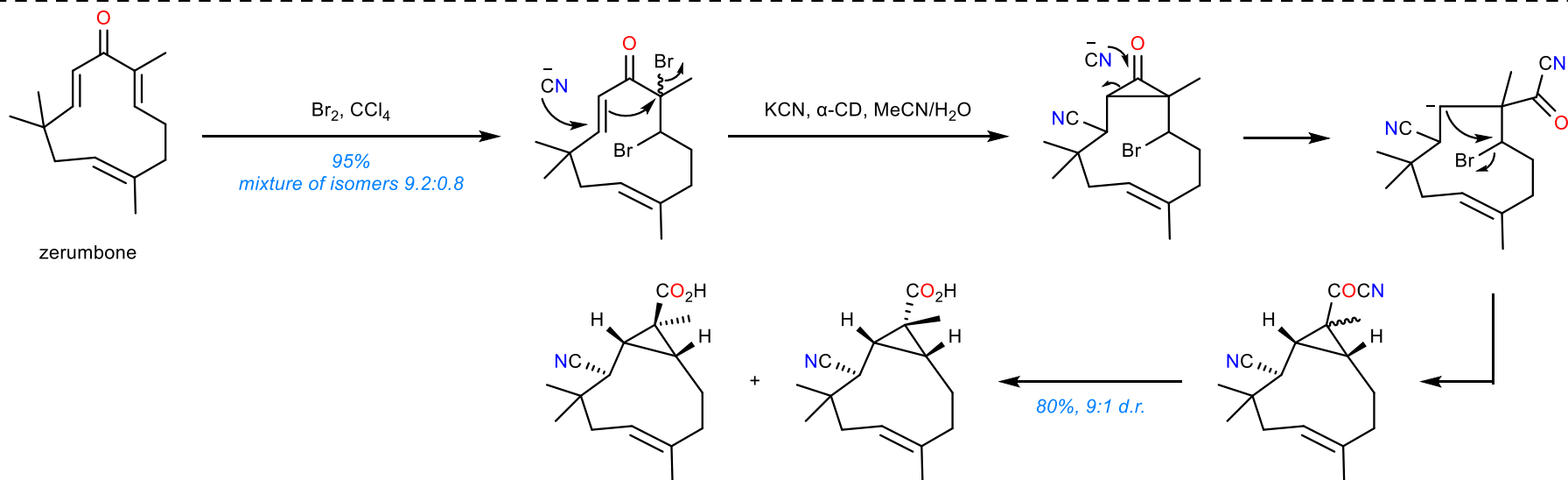
Applications in Synthesis



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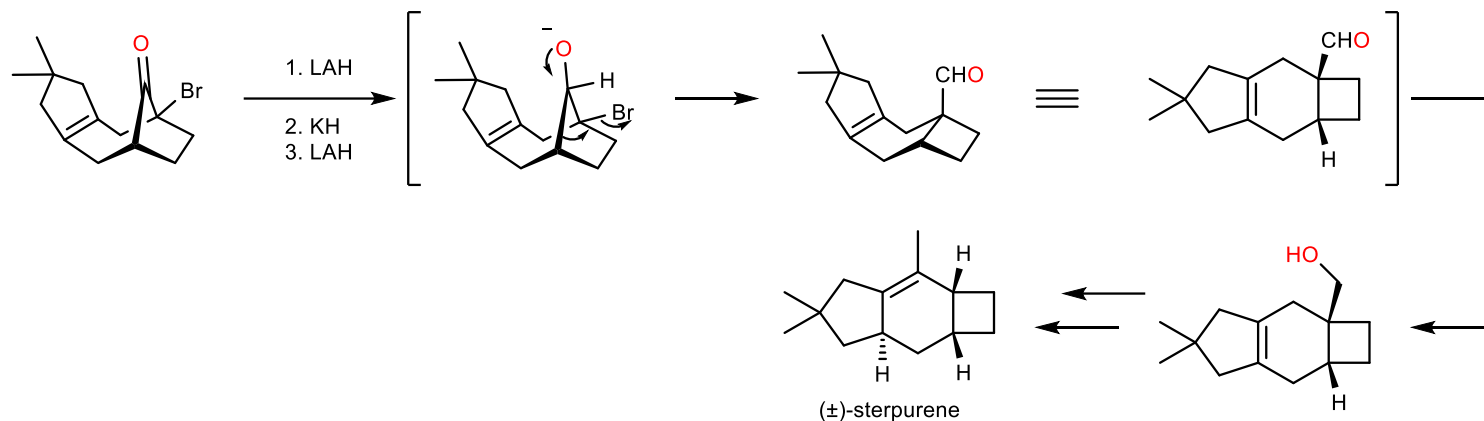


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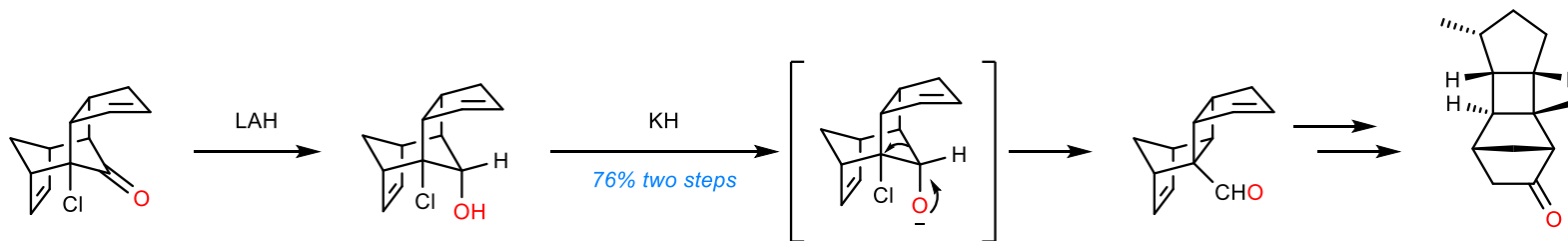


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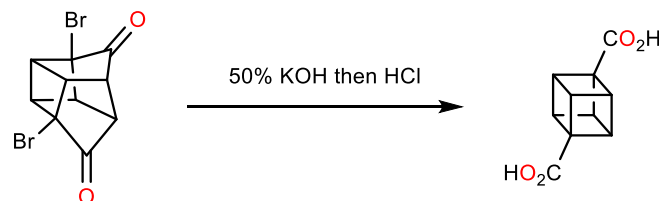
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