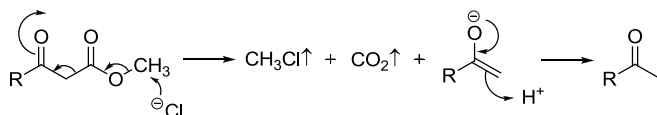
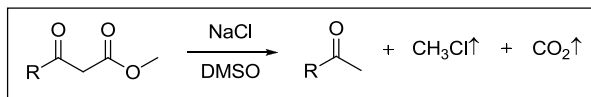
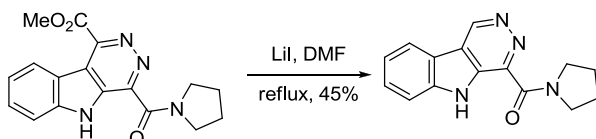


Krapcho reaction

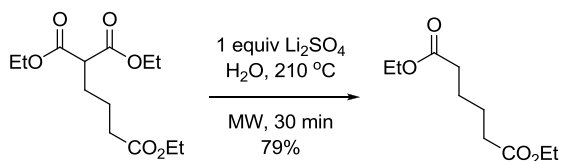
Nucleophilic decarboxylation of β -ketoesters, malonate esters, α -cyanoesters, or α -sulfonylestes.



Example 1⁵



Example 2¹⁰



References

1. Krapcho, A. P.; Glynn, G. A.; Grenon, B. J. *Tetrahedron Lett.* **1967**, 215–217. A. Paul Krapcho is a professor at the University of Vermont.
2. Duval, O.; Gomes, L. M. *Tetrahedron* **1989**, *45*, 4471–4476.
3. Flynn, D. L.; Becker, D. P.; Nosal, R.; Zabrowski, D. L. *Tetrahedron Lett.* **1992**, *33*, 7283–7286.
4. Martin, C. J.; Rawson, D. J.; Williams, J. M. J. *Tetrahedron: Asymmetry* **1998**, *9*, 3723–3730.
5. Gonzalez-Gomez, J. C.; Uriarte, E. *Synlett* **2002**, 2095–2097.
6. Bridges, N. J.; Hines, C. C.; Smiglak, M.; Rogers, R. D. *Chem. Eur. J.* **2007**, *13*, 207–5212.
7. Poon, P. S.; Banerjee, A. K.; Laya, M. S. *J. Chem. Res.* **2011**, *35*, 67–73. (Review).
8. Farran, D.; Bertrand, P. *Synth. Commun.* **2012**, *42*, 989–1001.
9. Adepu, R.; Rambabu, D.; Prasad, B.; Meda, C. L. T.; Kandale, A.; Rama Krishna, G.; Malla Reddy, C.; Chennuru, L. N. *Org. Biomol. Chem.* **2012**, *10*, 5554–5569.
10. Mason, J. D.; Murphree, S. S. *Synlett* **2013**, *24*, 1391–1394.