



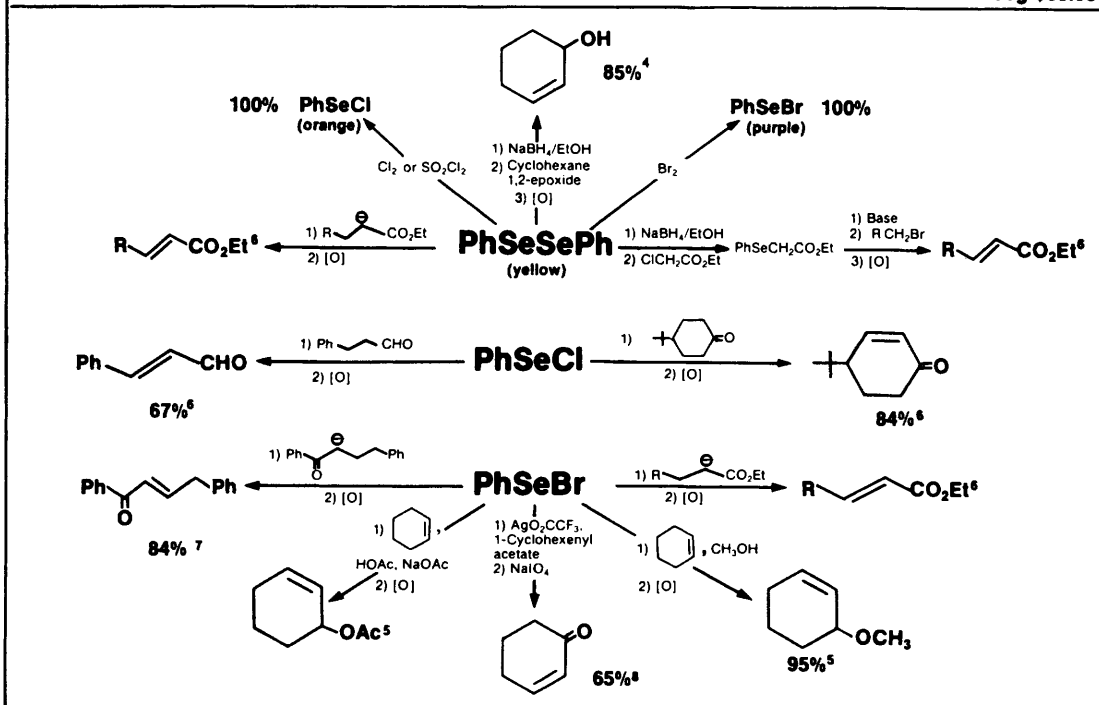
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- 1) K. B. Sharpless and R. F. Lauer, *J. Amer. Chem. Soc.*, **94**, 7154 (1972).
- 2) K. B. Sharpless and R. F. Lauer, *J. Org. Chem.*, **37**, 3973 (1972).
- 3) K. B. Sharpless, M. W. Young and R. F. Lauer, *Tetrahedron Lett.*, 1979 (1973).
- 4) K. B. Sharpless and R. F. Lauer, *J. Amer. Chem. Soc.*, **95**, 2697 (1973).
- 5) K. B. Sharpless and R. F. Lauer, unpublished results.
- 6) K. B. Sharpless, R. F. Lauer and A. Y. Teranishi, *J. Amer. Chem. Soc.*, **95**, 6137 (1973).
- 7) H. J. Reich, I. L. Reich and J. M. Renga, *J. Amer. Chem. Soc.*, **95**, 5813 (1973).
- 8) D. L. J. Clive, *J. Chem. Soc., Chem. Commun.*, 695 (1973).

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