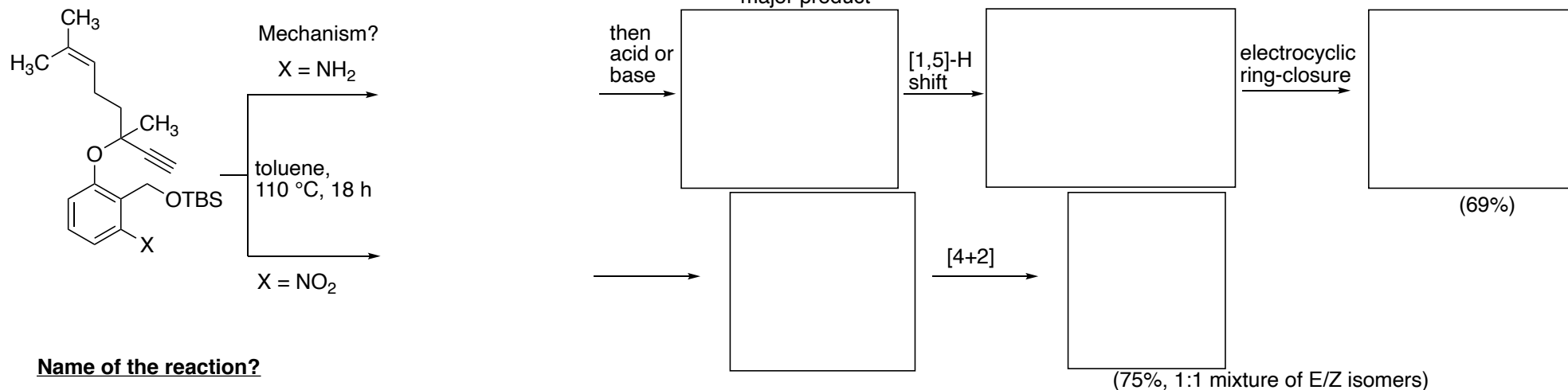




Provide a reasonable mechanism and specify the missing intermediates and products.

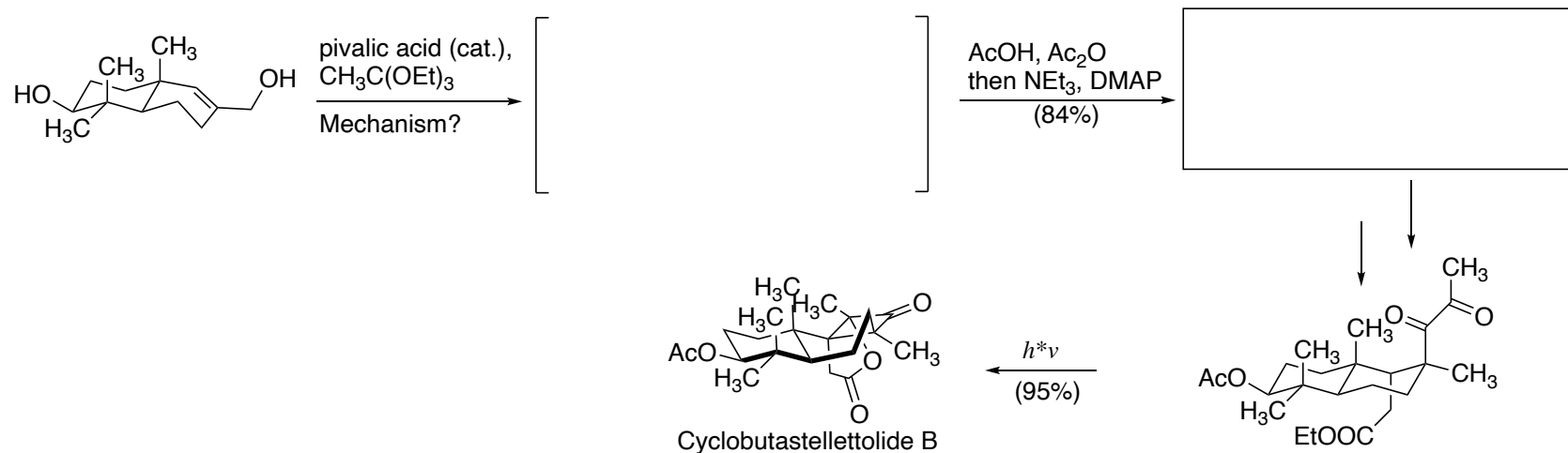
**[ , ]-Rearrangements :**  
**Name of the reaction?**

M. Ramirez, V. Vece, S. Hanessian, K. N. Houk, *J. Org. Chem.* **2021**, *86*, 17955–17964.  
major product



**Name of the reaction?**

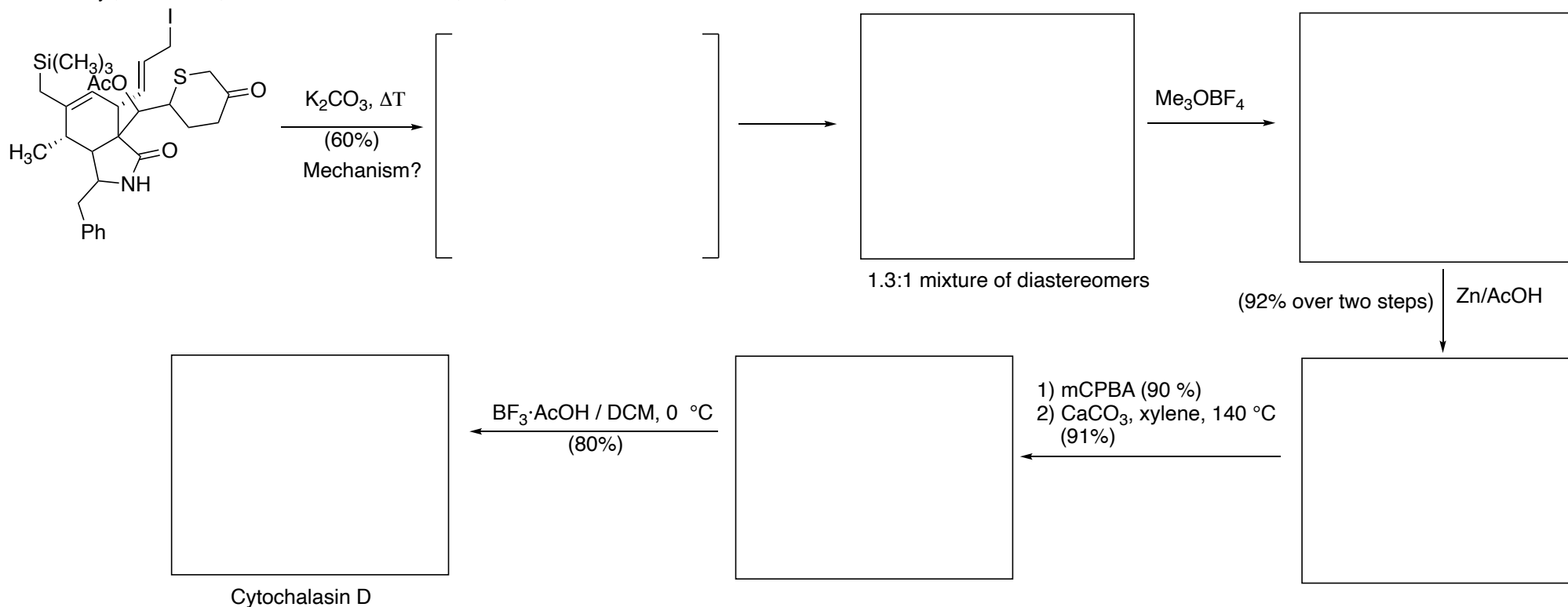
Z. Zhang, S. Chen, F. Tang, K. Guo, X.-T. Liang, J. Huang, Z. Yang, *J. Am. Chem. Soc.* **2021**, *143*, 18287-18293.





**[1,3]-Rearrangements :**

E. Vedejs, J. G. Reid, *J. Am. Chem. Soc.* **1984**, *106*, 4617



**Name of the reaction?**

S. M. Weinreb, F. Z. Basha, S. Hibino, N. A. Khatri, D. Kim, W. E. Pye, T. T. Wu, *J. Am. Chem. Soc.* **1982**, *104*, 536–544.

