



**Ernest Wenkert**

Says Professor Ed Billups of Rice University...

"The two things that I remember most vividly about Ernie is his lecture style and his ability to write a paper in pencil and have it typed without further revision. When he lectured he would adjust the size of the structures somewhere through the lecture so that everything was left on the board (start to end). Thursday evenings were reserved for the paper writing. He was away quite often and this often annoyed his colleagues. Nevertheless, he achieved more as the Chair at Rice than anyone else. His work on alkaloid biosyntheses is legendary. He did no experiments and got everything right."

Summary of research interests throughout Professor Wenkert's career:

- Natural Products Isolation
- Natural Product Structural Determination
  - Development  $^{13}\text{C}$  NMR for this purpose
  - Development of chiral shift reagents
- Total synthesis of Natural Products
  - Terpenes
  - Indole Alkaloids
- Development of chemical methods

A few notes:

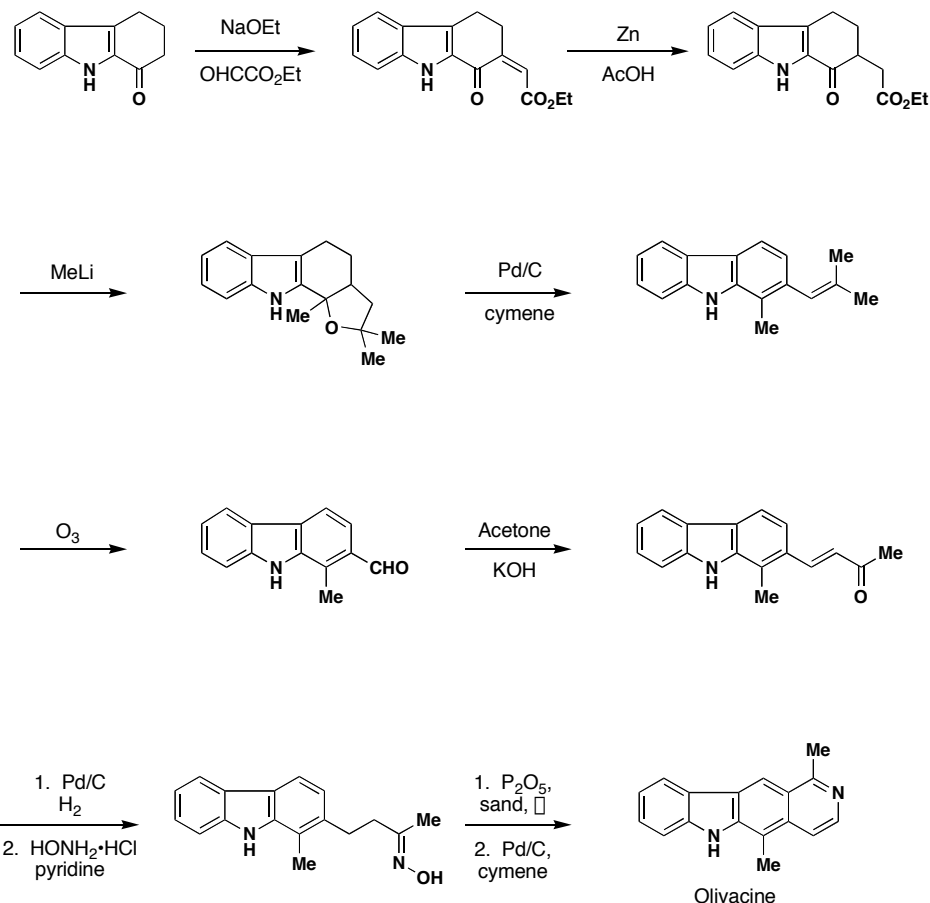
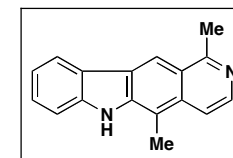
- Professor Wenkert published in **SIX** decades (1950s-2000s)
- All syntheses discussed are racemic unless otherwise noted (one)
- Syntheses discussed may be one of a few developed by Professor Wenkert
- Synthesis for the sake of synthesis

**Biographical Information:**

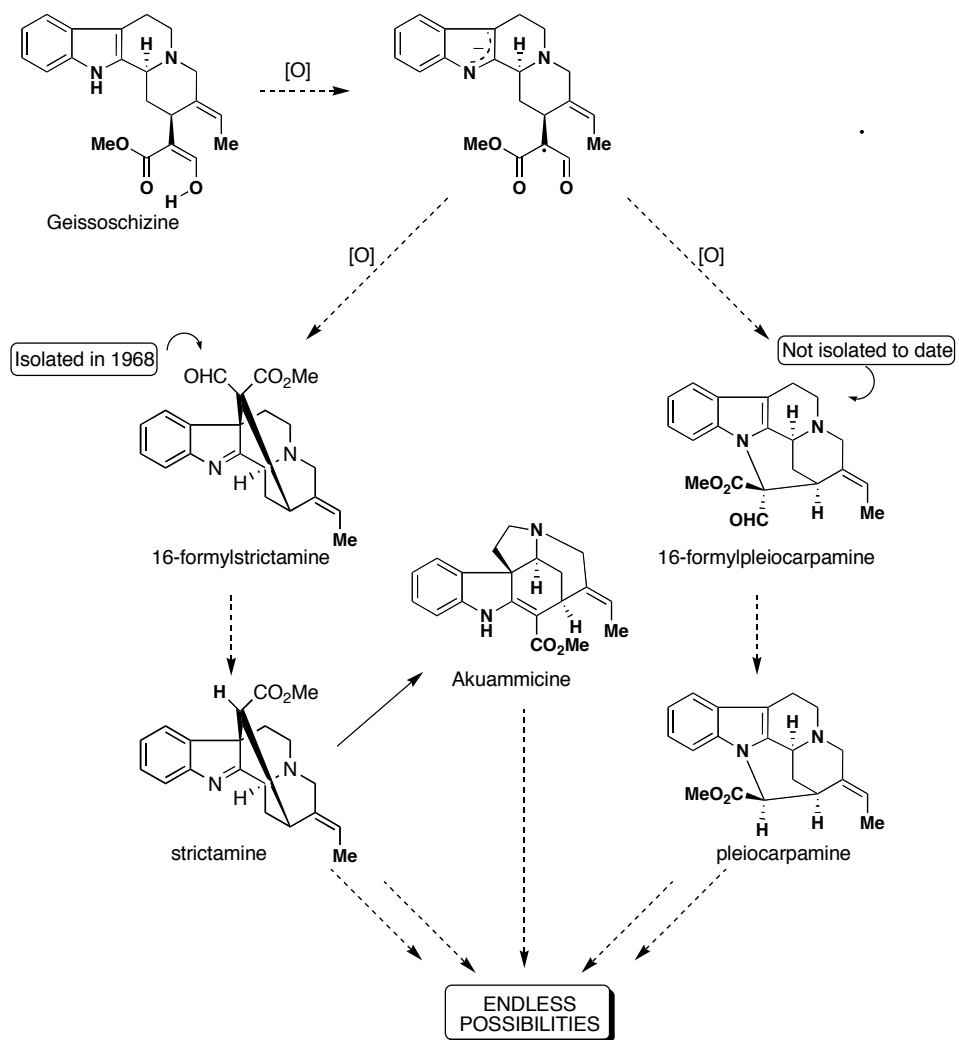
- Born on 10/16/1925 in Vienna, Austria
- Graduated from Garfield High School in Seattle in 1943
- Received B.S. and M.S. at the University of Washington in 1945 and 1947
- Instructor of Chemistry at Lower Columbia Jr. College (Longview, Washington)
- Ph.D. at Harvard University with R. B. Woodward (1948-1951)
- Faculty at Iowa State University (1951-1961)
- Herman T. Briscoe Professor at Indiana University (1961-1973)
- E. D. Butcher Professor at Rice University (1974-1980)
- Professor of Chemistry at University of California, San Diego (1980-1994) and Professor Emeritus (1994-present)
- Lifetime Achievement Award at 10th Symposium on the latest trends in Organic Synthesis (2002)



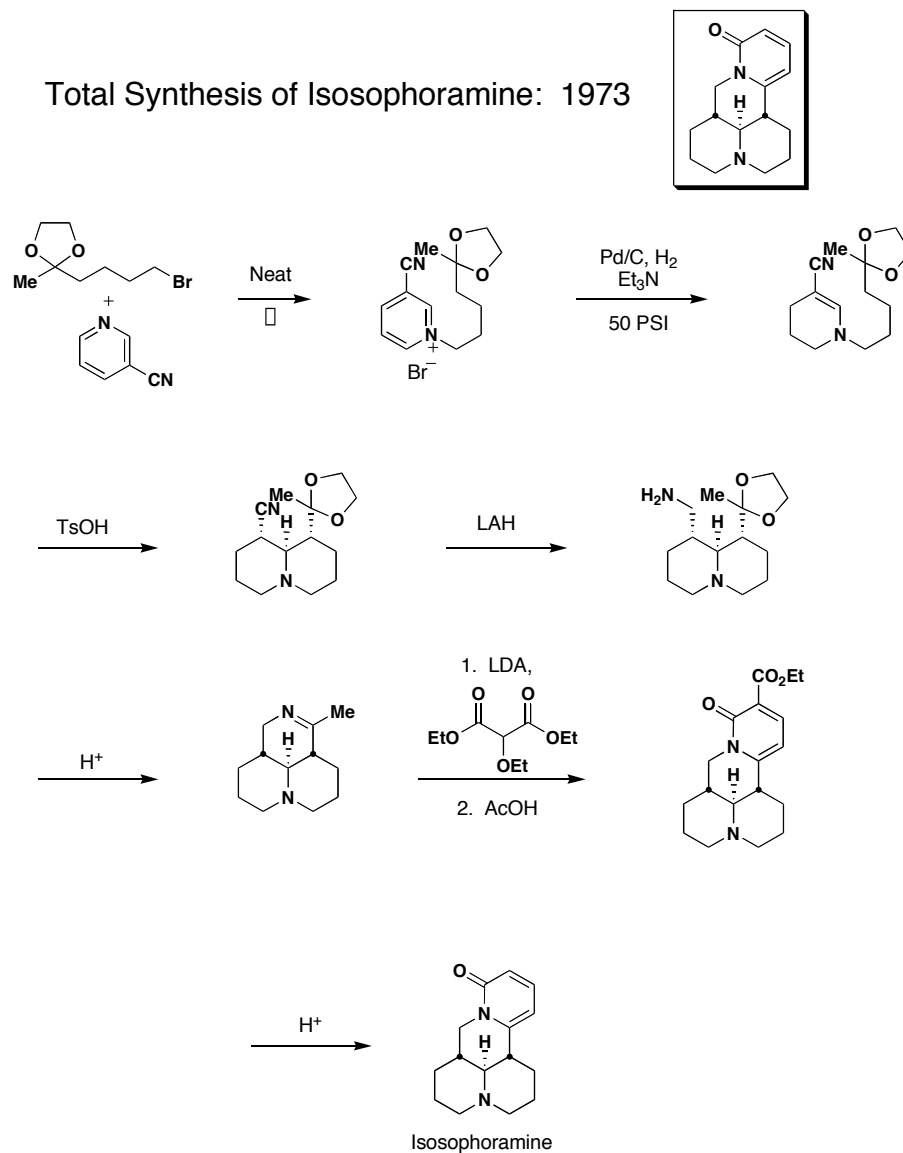
**Total Synthesis of Olivacine: 1962**



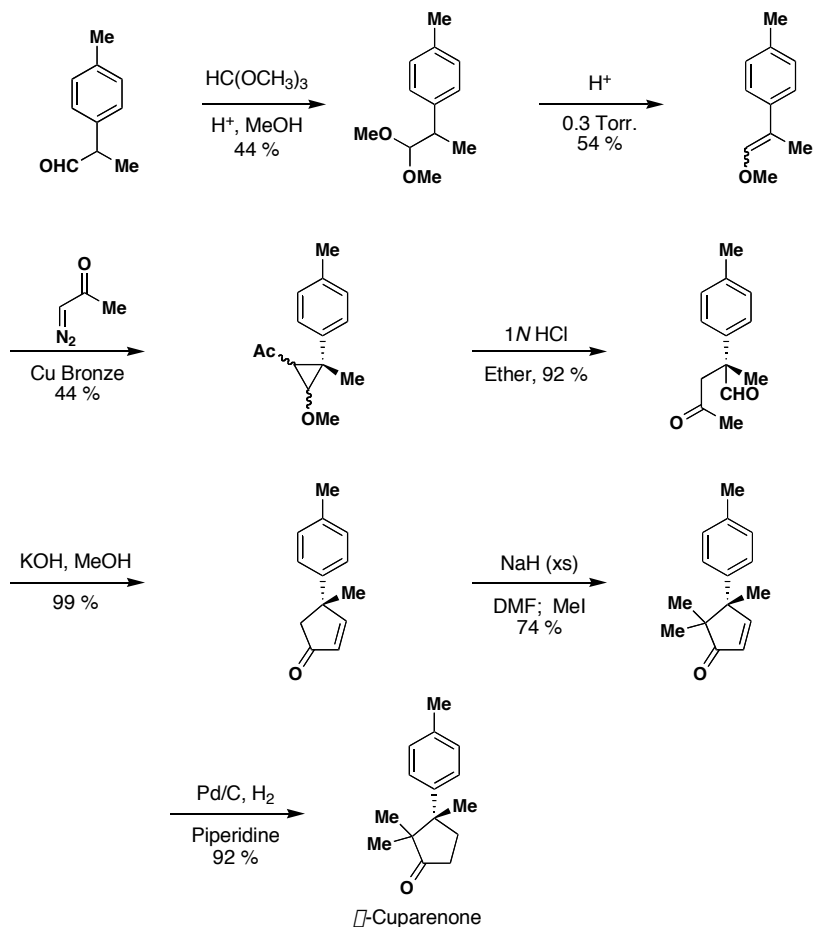
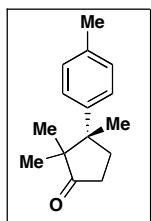
A "Sexy" Biosynthetic Hypothesis: 1965



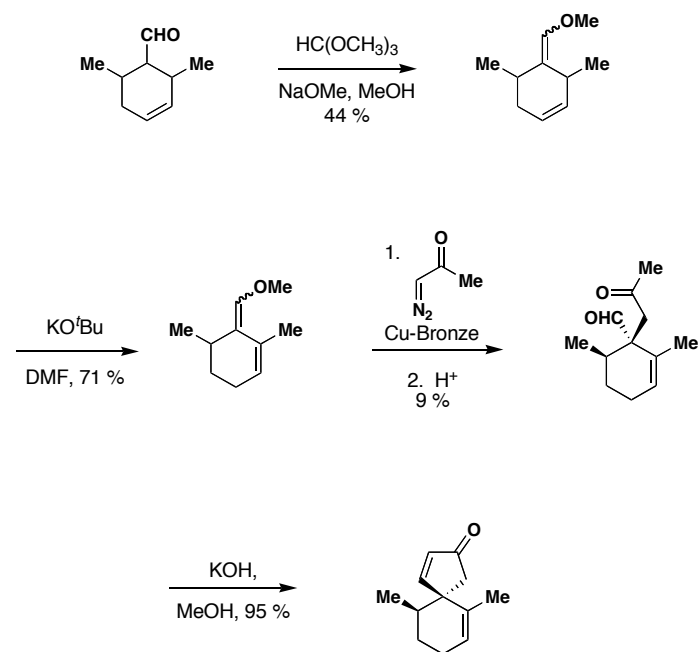
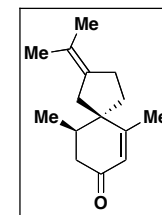
Total Synthesis of Isosophoramine: 1973



Total synthesis of  $\square$ -Cuparenone: 1978

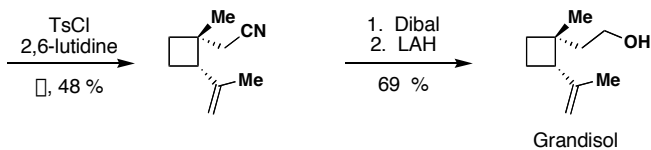
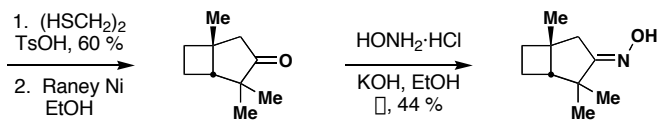
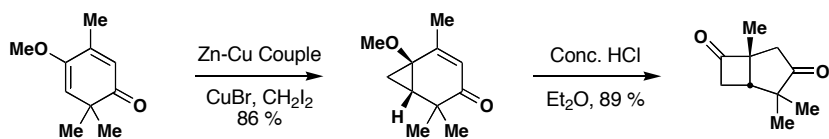
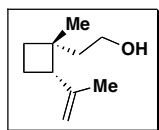


Formal Synthesis of  $\square$ -Vetivone: 1978

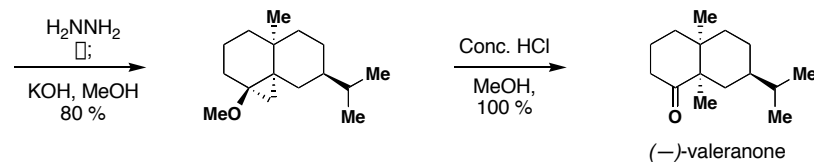
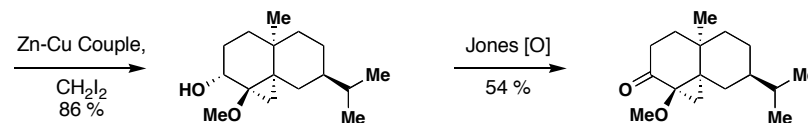
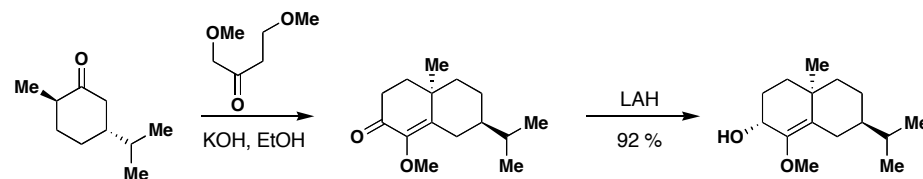
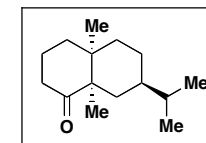


Completes the formal synthesis.  
Intercepts the Marshall synthesis:  
*J. Am. Chem. Soc.* **1967**, *89*, 2750.

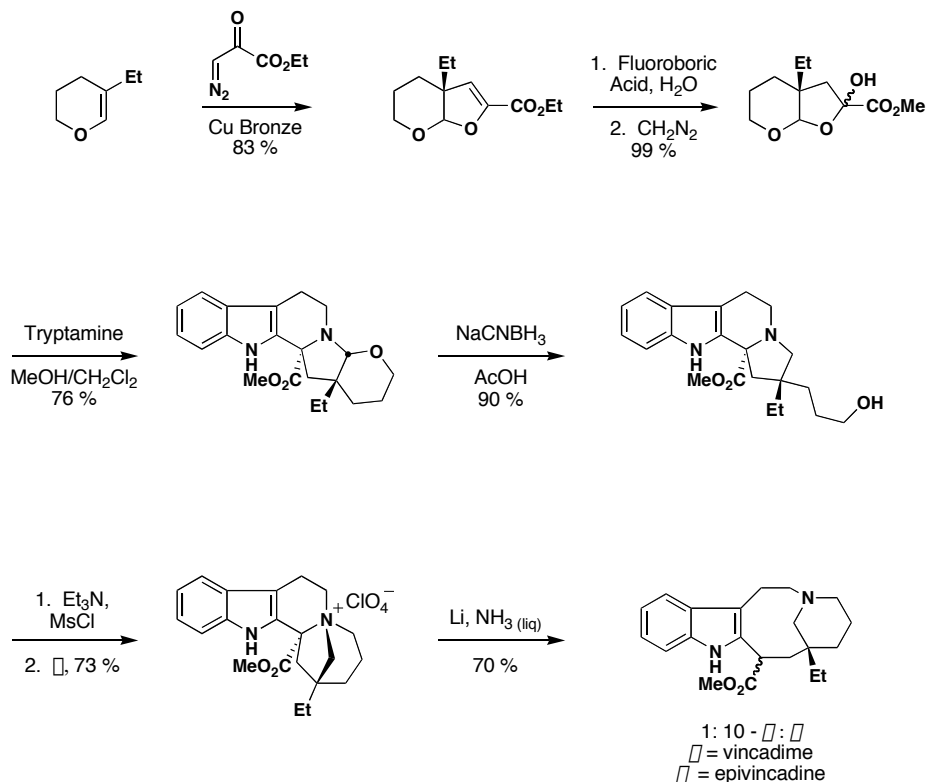
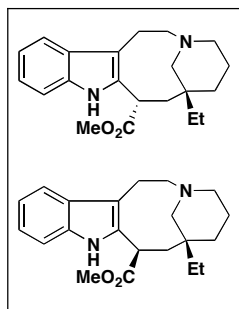
Total Synthesis of Grandisol: 1978



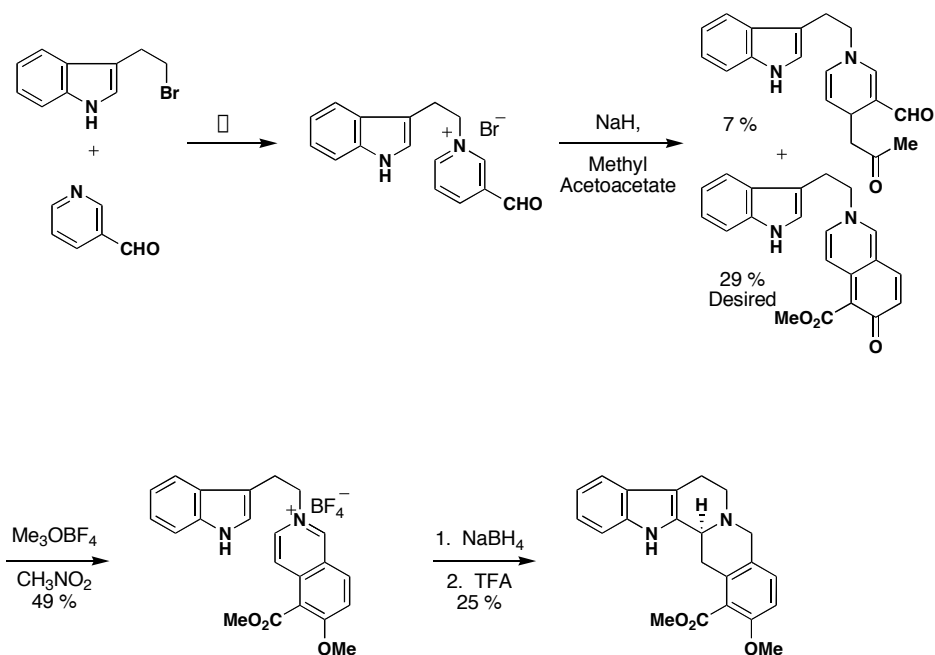
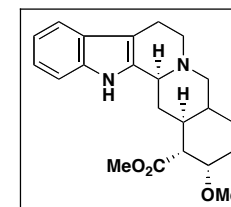
Total Synthesis of (-)-Valeranone: 1978



Total Synthesis of Vincadine  
& Epivincadine: 1981

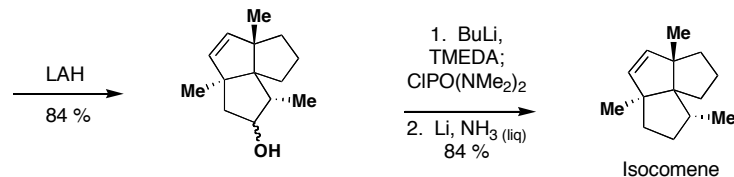
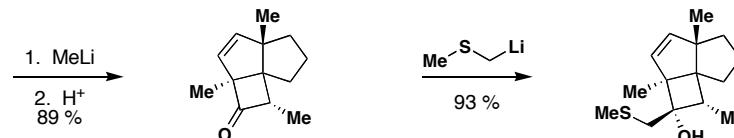
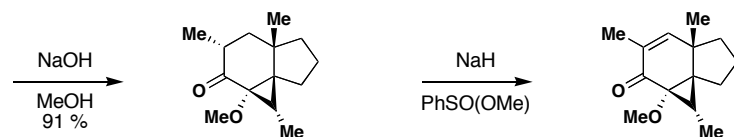
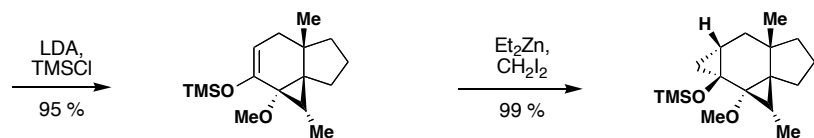
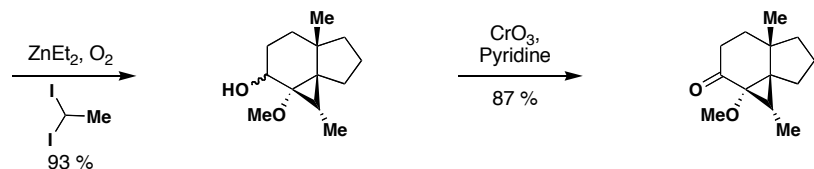
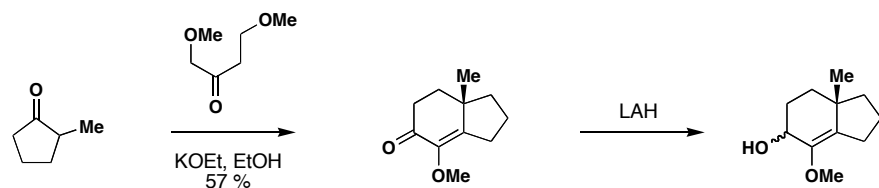
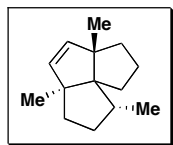


Formal Synthesis of Yohimbine: 1982

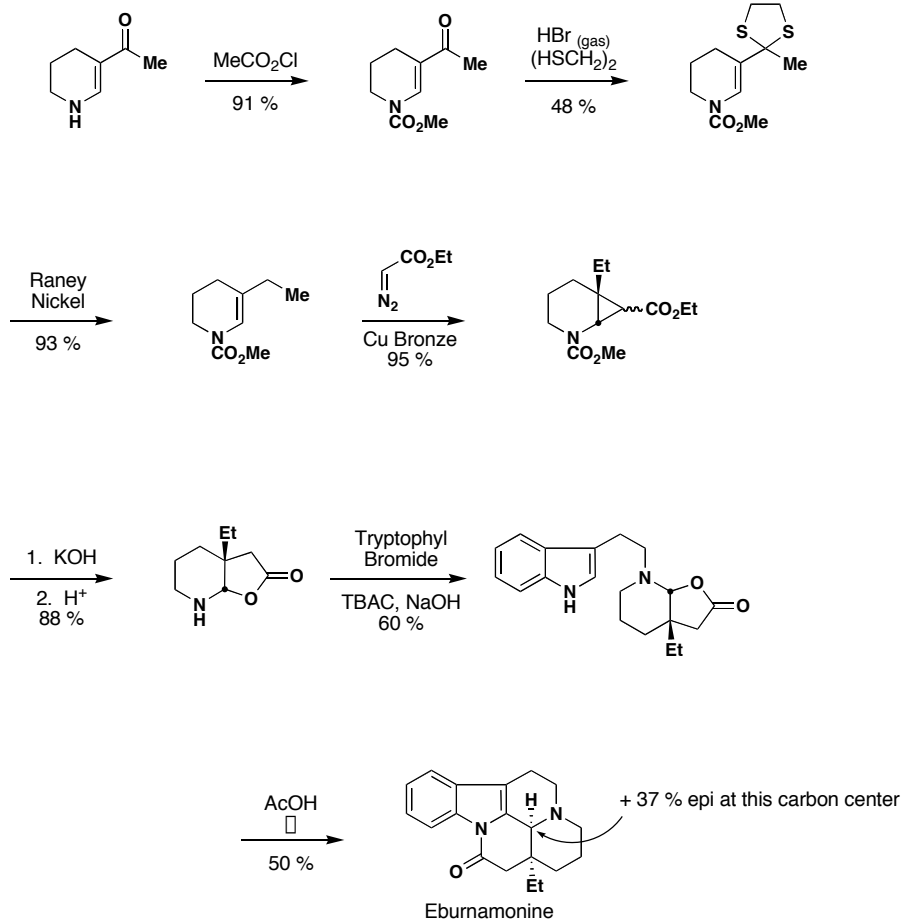
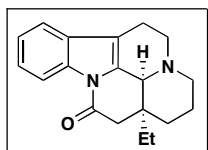


Completes the formal synthesis.  
Intercepts the Kametani synthesis:  
*Chem. Pharm. Bull.* 1975, 23, 2634.

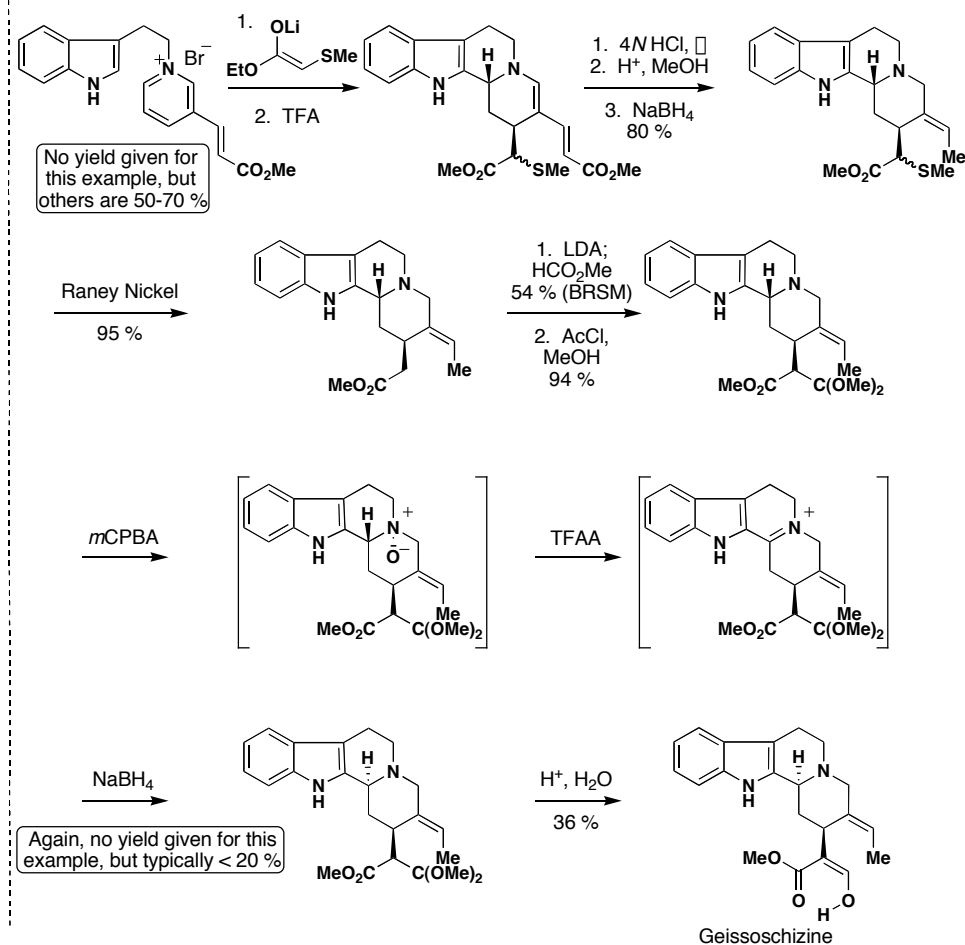
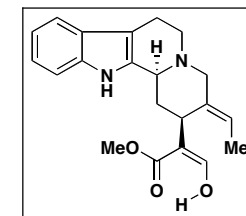
Total Synthesis of Isocomene: 1983



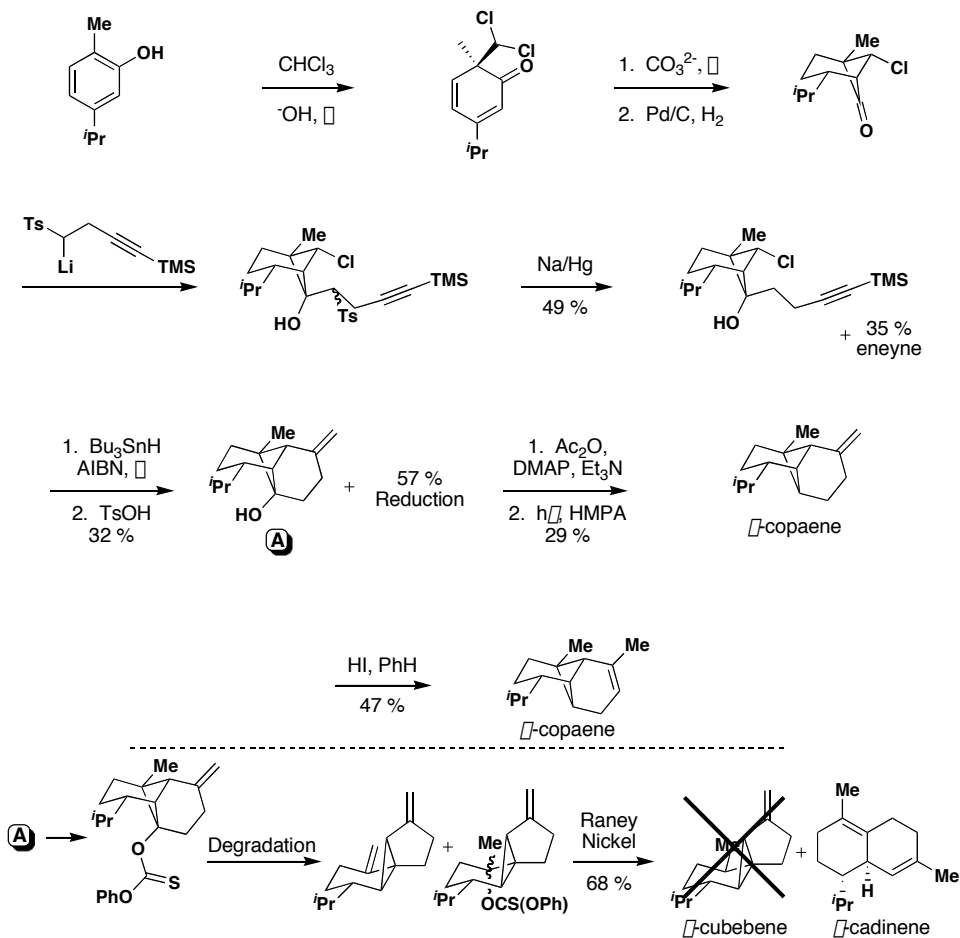
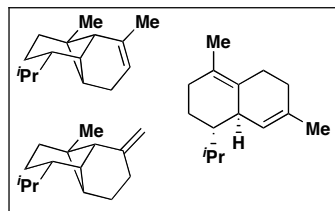
Total Synthesis of Eburnamonine: 1988



Total Synthesis of Geissoschizine: 1989

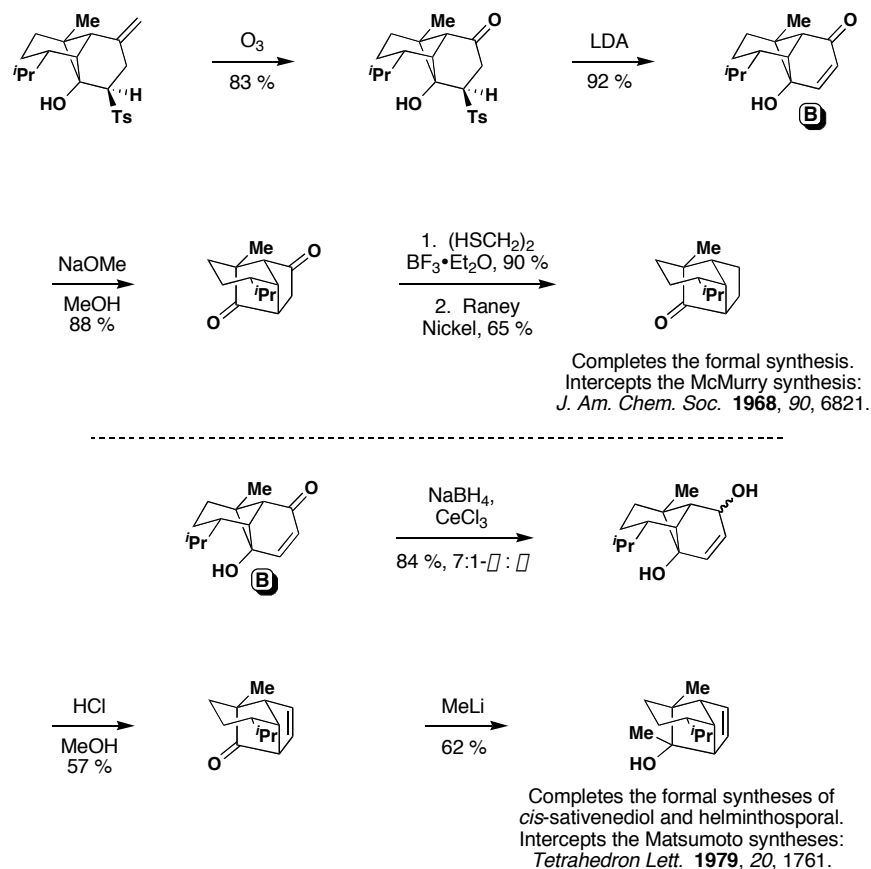
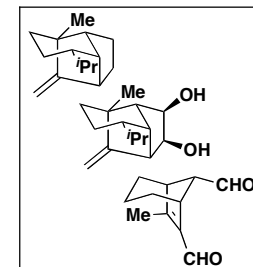


Total Syntheses of  $\beta$ - &  $\gamma$ -copaene,  
and  $\beta$ -cadinene: 1992



*J. Am. Chem. Soc.* **1992**, *114*, 649.

Formal Syntheses of Sativene, Sativenediol,  
and Helminthosporal: 1992



*J. Am. Chem. Soc.* **1992**, *114*, 649.



