



## Total synthesis of strychnine

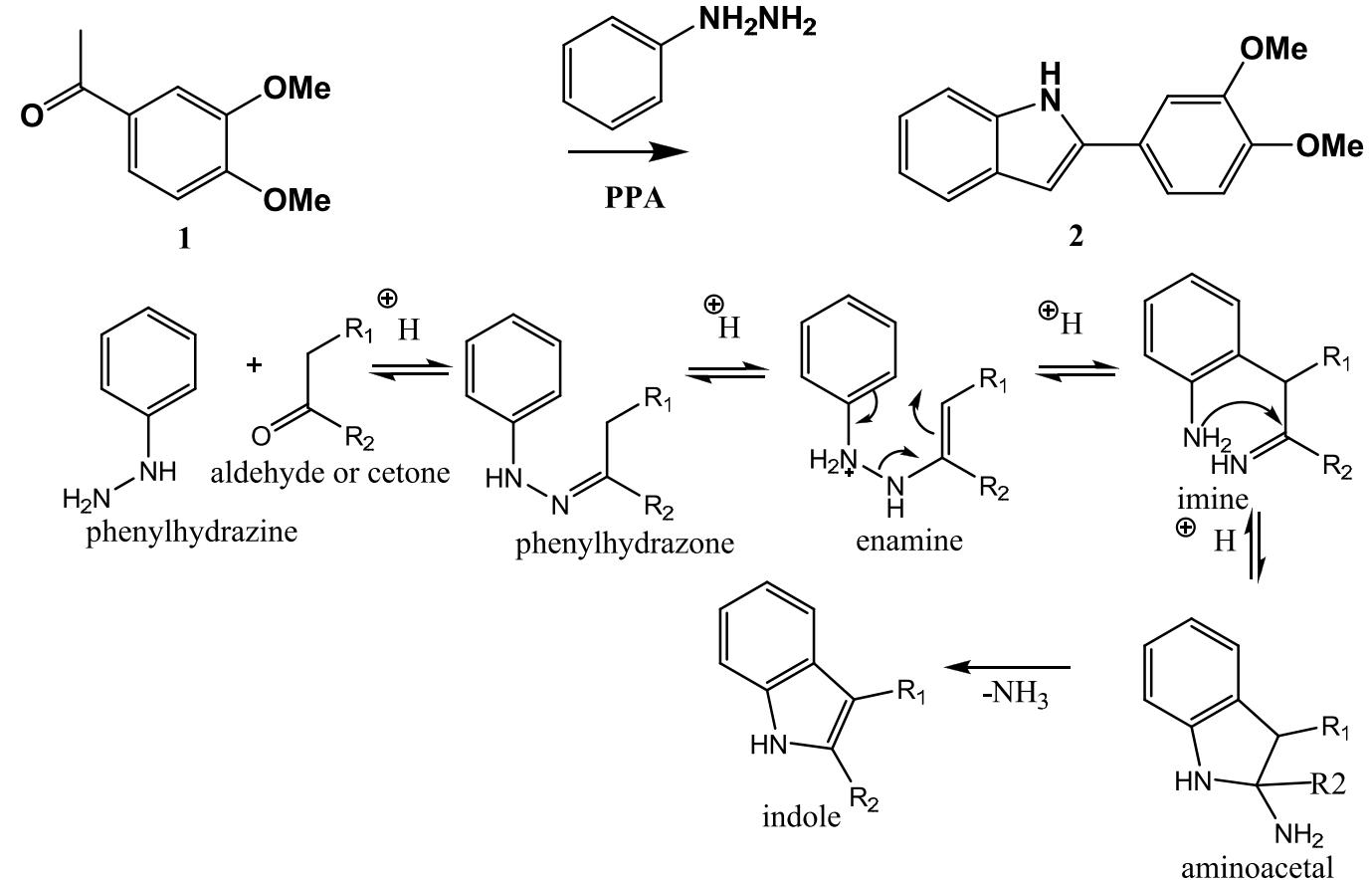
The strychnine is a natural product isolated in 1812 from the seeds and bark of *strychnos nux vomica* by Pelletier and Caventou.

Pelletier & Caventou, *Ann. Chim. Phys.* 1818, 8, 323.

Very toxic compound ( $LD_{50} = 10 \text{ mg/kg}$ ).

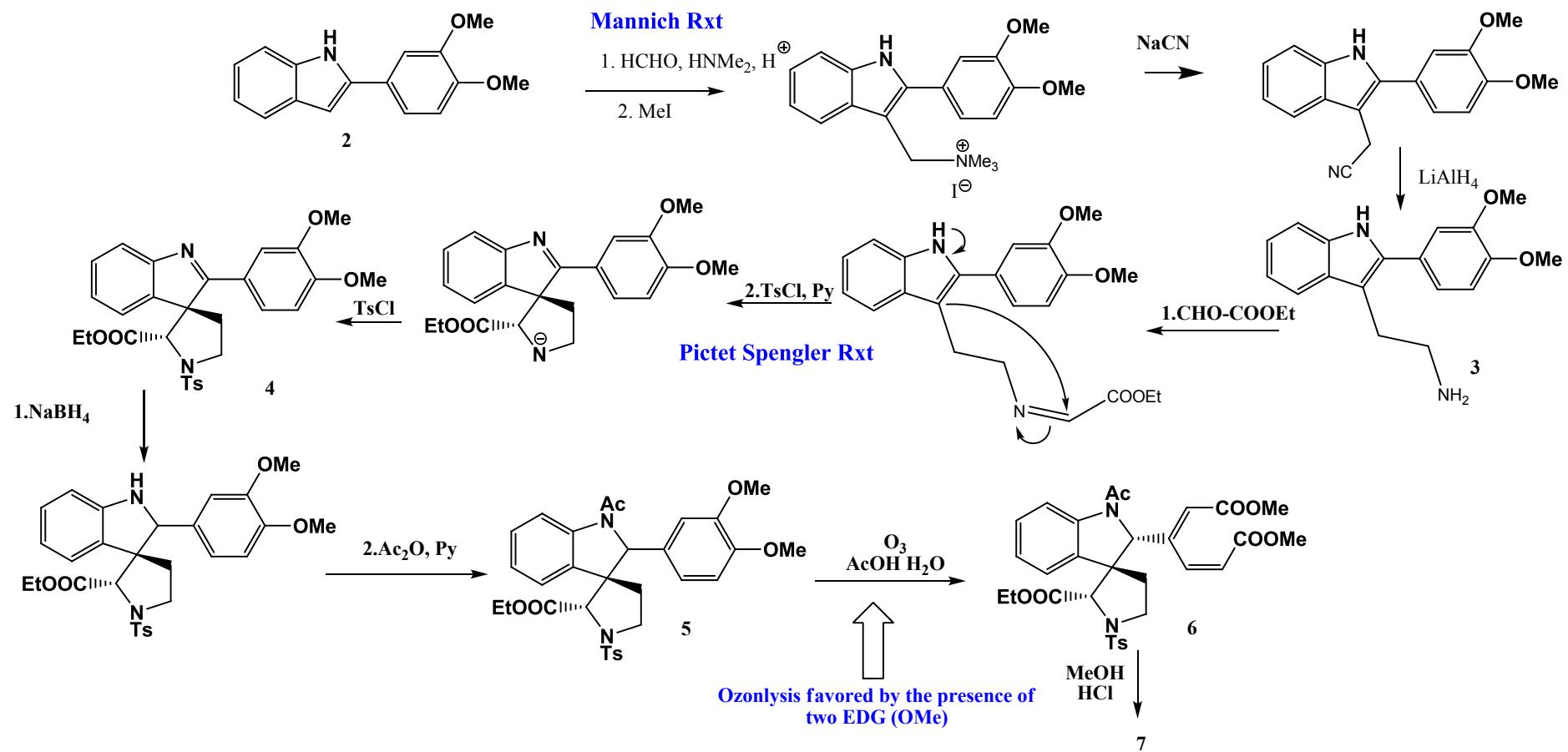
Massaba Keita  
Doctorante équipe D3-4  
Labo. Chimie thérapeutique  
& Abdallah Hamze  
Mdc équipe D3-1  
Labo. Chimie thérapeutique

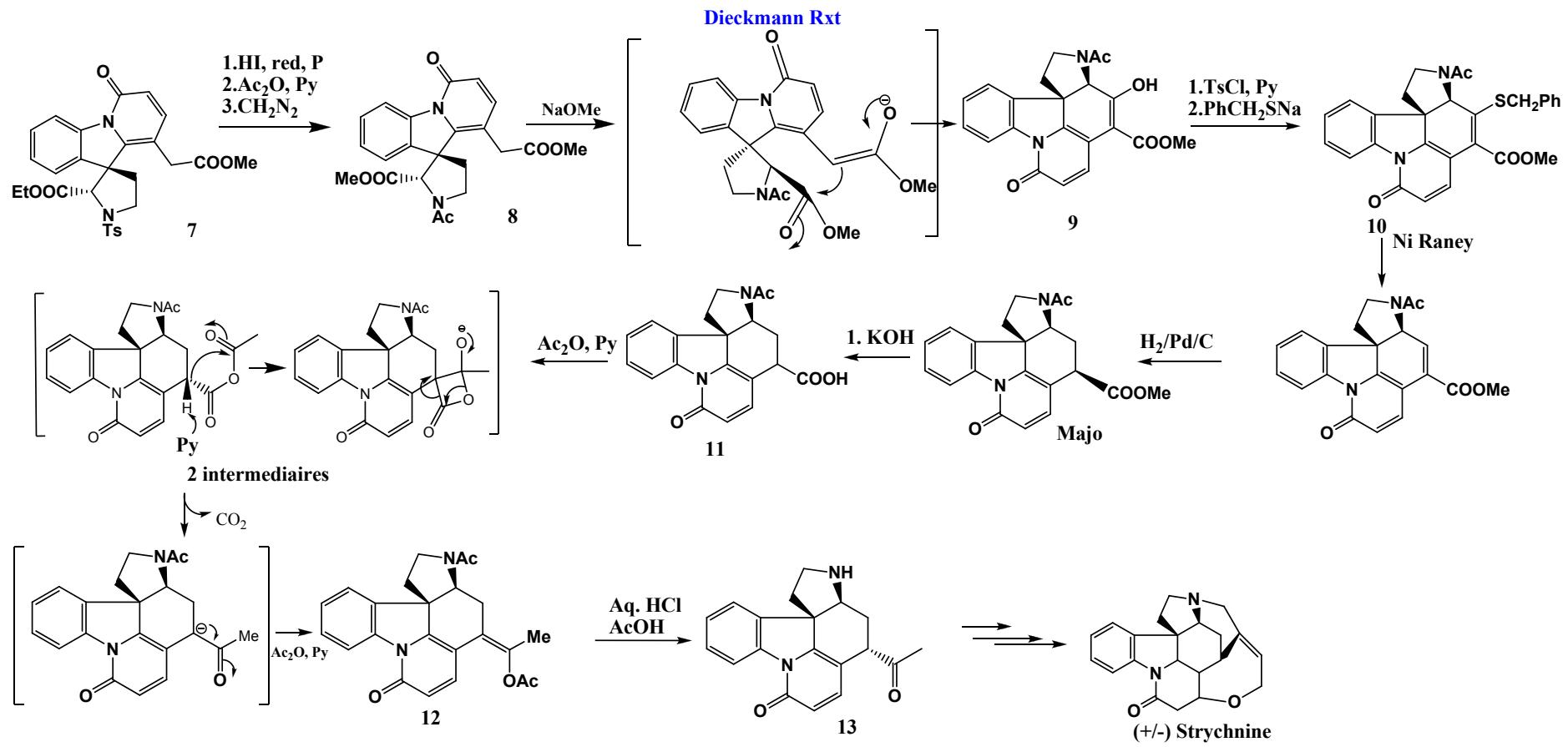
### 1. Mécanisme de la synthèse indolique de Fisher

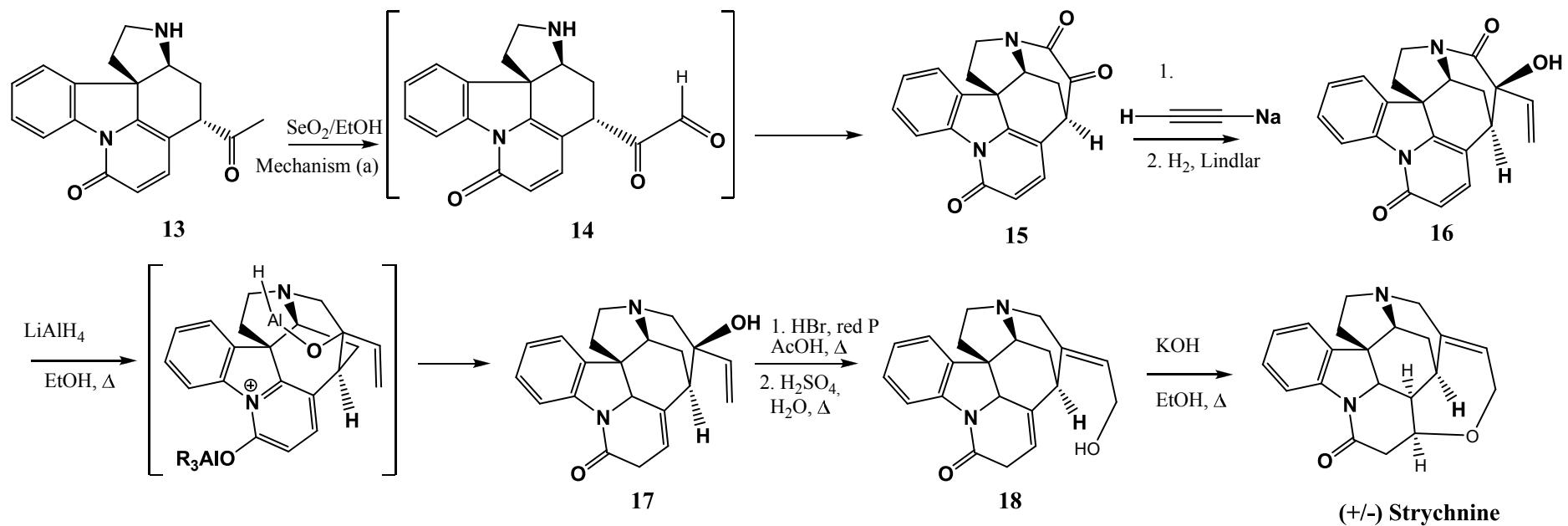


## Woodward's Total Synthesis of strychnine (1954).

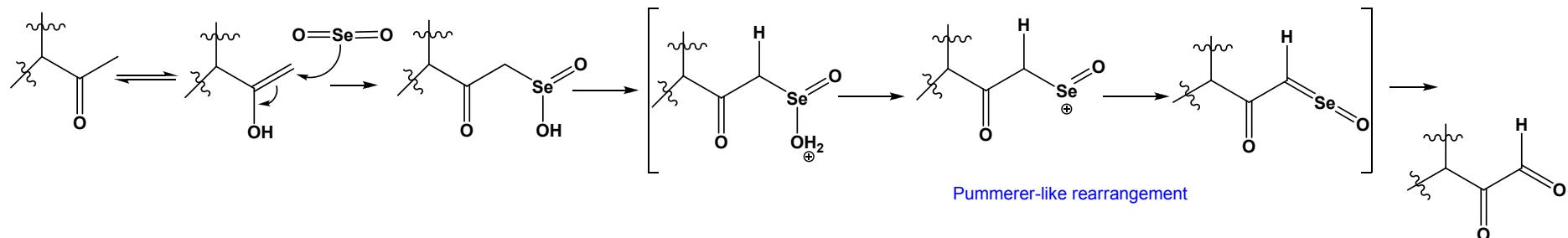
Woodward et al. J. Am. Chem. Soc. 1954, 76, 4749-4751.







<sup>a</sup> Oxidation Mechanism with SeO<sub>2</sub>



*In the literature 14 total synthesis*

- R. B. Woodward – 1954 • Philip Magnus – 1992 • Gilbert Stork – 1992 Larry E. Overman – 1993 • Martin E. Kuehne – 1993 • Viresh H. Rawal – 1994 • Josep Bonjoch & Joan Bosch – 1999 • Stephen F. Martin - 1996-2001 • Michael Eichberg & Peter Vollhardt – 2000 • Graham J. Bodwell – 2002 • Miwako Mori – 2002 • Masakatsu Shibasaki – 2002 • Tohru Fukuyama – 2004 • Albert Padwa – 2007.

Pour toute erreur veuillez me contacter sur mon adresse e.mail : abdallah.hamze@u-psud.fr