

General Microbiology

1. Who was the first person to observe bacteria using a microscope?
 - a. Lister
 - b. van Leeuwenhoek
 - c. Pastuer
 - d. Koch

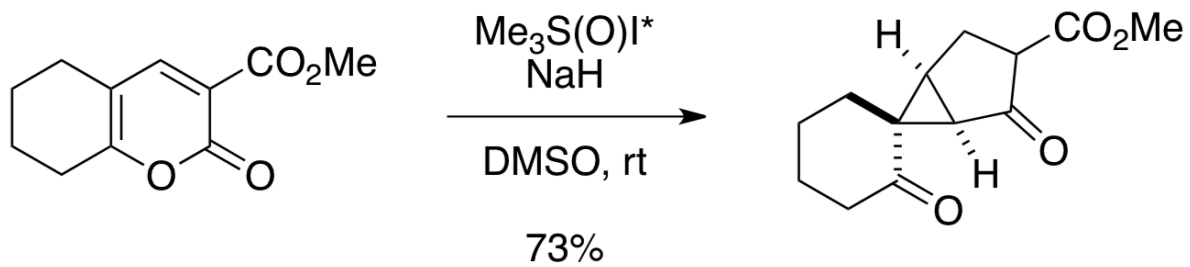
2. Which **two** of the following contribute to the opportunistic and infectious nature of bacteria?
 - a. flagella
 - b. ability to persist in unfavorable environments
 - c. selectively permeable membranes
 - d. fast growth
 - e. ability to sense chemical gradients
 - f. peptidoglycan

3. Capsules, sheaths, and slime layers generally aid with
 - a. nutrient transport
 - b. cell attachment
 - c. chemotaxis
 - d. heat resistance

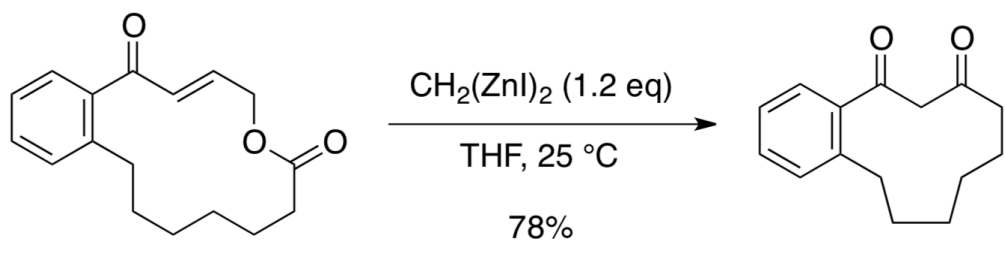
4. Penicillin controls bacterial growth by:
 - a. preventing synthesis of the lipopolysaccharide layer
 - b. inhibiting protein synthesis
 - c. preventing cross-link formation in peptidoglycan
 - d. preventing generation of the proton motive force

5. When the plague devastated the population of Europe in the Middle Ages, why did people catch the disease even if they didn't come into contact with infected people or dead bodies?
 - a. The infectious organism washed out of bodies into the public water supply
 - b. The infectious organism produced endospores that persisted in houses and public places
 - c. The infectious organism persisted on nearly any surface in a state of non-growth activity and was readily picked up by unsuspecting people
 - d. The infectious organism was transmitted from bodies to rats, then to fleas, and from fleas to people

Provide a Mechanism for the following reactions:



* theoretically 2 eq.



Name 10 women and/or ethnic minority professors currently working on total synthesis or methodology

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.