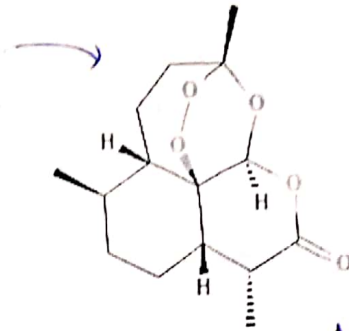


Semisynthetic derivatives of Artemisinin  
agent P. falciparum  
UNIT -4

ARTEMISININ (230 Ashwini)

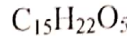
Sesquiterpene lactone with an internal peroxide linkage



mp  $\rightarrow$  152-157°C  
B.P. - Decomposes  
M.Wt  $\rightarrow$  282

368

Artemisinin



Source

- Artemisinin is an ancient Chinese Novel medicinal agent against malaria isolated from the plant Artemisia annua (sweet wormwood). (F - Asteraceae)
- It was discovered in 1972 by Tu Youyou, a Chinese scientist, who was awarded half of the 2015 Nobel Prize in Medicine for her discovery.
- It is a potent Chinese traditional medicinal agent used against malaria due to Plasmodium falciparum world wide. It has potent activity against many forms of malarial organisms including chloroquine-resistant Plasmodium falciparum.

Properties

Chemically, artemisinin is a sesquiterpene lactone containing an unusual peroxide bridge. This endoperoxide 1,2,4-trioxane ring is responsible for the drug's mechanism of action. Few other natural compounds with such a peroxide bridge are known

Isolation

