

Historical Milestones in Organic Chemistry

Organic Chemistry · Practice Test · 10 Questions

1. Which scientist is credited with the 1828 synthesis of urea from ammonium cyanate, effectively challenging the theory of vitalism?

- A) Friedrich Wöhler
- B) Antoine Lavoisier
- C) Dmitri Mendeleev
- D) John Dalton

2. August Kekulé proposed the cyclic structure of benzene in 1865, famously claiming the idea came to him in a dream about what?

- A) A snake biting its own tail
- B) A spinning wheel
- C) A honeycomb structure
- D) A hexagonal crystal

3. Who was awarded the 1902 Nobel Prize in Chemistry for his work on sugar and purine syntheses?

- A) Emil Fischer
- B) Louis Pasteur
- C) Robert Robinson
- D) Linus Pauling

4. In 1856, William Henry Perkin accidentally discovered the first synthetic organic dye, known as what?

- A) Mauveine
- B) Indigo
- C) Alizarin
- D) Prussian blue

5. Which chemist established the concept of stereochemistry by demonstrating that tartaric acid exists in different optical isomers?

- A) Louis Pasteur
- B) Jacobus Henricus van 't Hoff
- C) Gilbert N. Lewis
- D) Alfred Werner

6. The Woodward-Hoffmann rules, which explain the conservation of orbital symmetry in chemical reactions, were developed in the mid-1960s by Robert Burns Woodward and whom?

- A) Roald Hoffmann
- B) Linus Pauling
- C) Francis Crick
- D) Peter Debye

7. In 1930, Wallace Carothers, working at DuPont, led the research team that successfully synthesized which major polymer?

- A) Neoprene
- B) Polyethylene
- C) Polystyrene
- D) Teflon

8. Which scientist developed the method of combustion analysis in the early 19th century, allowing for the determination of the elemental composition of organic compounds?

- A) Justus von Liebig
- B) Robert Boyle
- C) Henry Cavendish
- D) Joseph Priestley

9. The Cahn-Ingold-Prelog priority rules are used in organic chemistry to specify what?

- A) The configuration of stereocenters
- B) The acidity of carboxylic acids
- C) The electronegativity of functional groups
- D) The boiling point of alkanes

10. Who coined the term 'organic chemistry' in 1807 to describe the chemistry of substances derived from living organisms?

- A) Jöns Jacob Berzelius
- B) Dmitri Mendeleev
- C) Stanislao Cannizzaro
- D) August Wilhelm von Hofmann