

Historical Milestones in Organic Chemistry

Organic Chemistry · Practice Test · 12 Questions

1. Which German chemist is famously credited with synthesizing urea from inorganic materials in 1828, effectively challenging the theory of vitalism?

- A) Friedrich Wöhler
- B) August Kekulé
- C) Justus von Liebig
- D) Dmitri Mendeleev

2. In 1865, which scientist proposed the cyclic hexagonal structure of benzene after allegedly dreaming of a snake biting its own tail?

- A) Louis Pasteur
- B) August Kekulé
- C) Emil Fischer
- D) Linus Pauling

3. Who is known as the father of modern organic chemistry for his work in the 19th century, particularly regarding the development of the structural theory of organic compounds?

- A) Robert Boyle
- B) Antoine Lavoisier
- C) August Kekulé
- D) Alfred Nobel

4. Which English chemist discovered the first synthetic organic dye, 'mauveine', by accident in 1856?

- A) William Henry Perkin
- B) Michael Faraday
- C) John Dalton
- D) Ernest Rutherford

5. What was the first mass-produced synthetic drug, marketed by Bayer in 1899, which revolutionized the treatment of pain and inflammation?

- A) Penicillin
- B) Aspirin
- C) Morphine
- D) Sulfanilamide

6. Which scientist is credited with developing the 'lock and key' model in 1894 to explain the specificity of enzyme-substrate interactions?

- A) Emil Fischer
- B) Gregor Mendel
- C) Marie Curie
- D) Thomas Edison

7. The 1828 synthesis of urea disproved the long-held scientific belief in which concept?

- A) Atomic theory
- B) Vitalism
- C) Thermodynamics
- D) Evolution

8. In the history of organic chemistry, what did the 1856 synthesis of mauveine by William Henry Perkin launch?

- A) The plastics industry
- B) The synthetic dye industry
- C) The petroleum industry
- D) The fertilizer industry

9. Which chemist was the first to use the term 'organic chemistry' to describe the study of compounds derived from living organisms?

- A) Jöns Jacob Berzelius
- B) Isaac Newton
- C) Carl Wilhelm Scheele
- D) Joseph Priestley

10. Which major breakthrough in 1902 allowed chemists to understand the structure of proteins through the identification of peptide bonds?

- A) The invention of the microscope
- B) The work of Emil Fischer
- C) The discovery of DNA
- D) The development of chromatography

11. Which compound was isolated from willow bark and later served as the basis for the development of modern aspirin?

- A) Salicin
- B) Caffeine
- C) Nicotine
- D) Quinine

12. What century is widely considered the era in which organic chemistry emerged as a distinct scientific discipline separate from inorganic chemistry?

- A) 17th century
- B) 18th century
- C) 19th century
- D) 20th century