The chemical study of archaeological materials

Archaeological Chemistry, Second Edition is about the application of the chemical sciences to the study of ancient man and his material activities. The text of the book centers on the use of chemical methods, but also refers to the contributions of physics, biology, and genetics to archaeological research.

Subjects discussed in the book include the determination of the nature of ancient materials, their provenance and age, the technologies used for the production of man-made materials, and the analysis of ancient human and animal remains (such as bone, dried blood, and coprolites), which yields information on ancient diets, kinship, habitancy, and migratory patterns.

New developments in analytical chemistry and in related disciplines, which have contributed to archaeological research since the first edition of the book was published, are dealt with in this edition, which also includes:

* Updated information on the study of the nature, age, and provenance of ancient materials
New sections on organic, biological and genetic studies

Glossary

Extensive bibliography

The book is intended primarily for archaeologists, physical anthropologists and students of archaeology and physical anthropology, but will also be of use to conservators, curators, and art historians. Natural scientists reading it will become acquainted with advances in archaeological research which were made possible only by the application of chemical, physical, and biological methods and techniques.

ABOUT THE AUTHOR

Zvi Goffer, who received his B.sc. and Ph.D. degrees from the University of London, is a research scientist now retired from the Soreq Nuclear Research Center, Israel. He lectured on Archaeometry at Tel Aviv and Beer Sheba Universities and at the Weizmann Institute of Science in Israel, and was a visiting scientist with the Scientific Archaeology groups at Tokyo National University of Fine Arts, Harvard University, and the Weizmann Institute of Science.

NEW TO EDITION

• New developments in analytical chemistry and in related disciplines, which have contributed to archaeological research since the first edition

• Includes new sections on computer techniques, DNA analysis, and more

• Updated information on the study of the nature, age, and provenance of ancient materials

• New sections on organic, biological and genetic studies
FEATURES

• Discusses the determination of the nature of ancient materials, their provenance and age, the technologies used for the production of man-made materials

• Provides real-world case studies on the authentication of antiquities such as the Piltdown man, the Shroud of Turin, and others

• Supplies extensive references as well as a glossary and appendices on the chemical elements; chronometric dating methods; and symbols, units of measure, and equivalencies

• Analyzes ancient human and animal remains (such as bone, dried blood, and coprolites), which yields information on ancient diets, kinship, habitancy, and migratory patterns

SERIES

Chemical Analysis: A Series of Monographs on Analytical Chemistry and Its Applications

For additional product details, please visit https://www.wiley.com/en-us