

THE IMPORTANCE OF CHEMISTRY IN CRIMINOLOGY.

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Annotation. In this article, information about criminology and a significance of chemistry in criminalistics and examples of it described in detail.

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Imagine a tiny carpet fiber... The pattern of blood droplets on a wall. The chemicals in duct tape.

These can all help detectives to decipher a crime scene. With chemistry, forensic scientists can paint a picture of what happened, sometimes on a molecular level. Chemical analysis can reveal how long ago a person died, which gunshot the fatal bullet, and where the tape that tied them up was manufactured. For chemical analysis to be useful for solving mysteries, it needs to be based on solid research. Forensic scientists analyze every detail collected at the scene, looking for clues that explain what happened and who was involved. In our fast-paced world, chemistry is playing a large role not only in promoting healthcare among the population, but also in the realm of criminal law. First of all, we should have basic knowledge about criminology and chemistry, and their relations between them.

Criminology is the scientific study of crime, criminals, and criminal behavior, including the root causes and motivations behind criminal acts. Chemistry, on the other hand, is the study of the composition, properties, and behavior of matter. Although the two fields may seem vastly different, there are wealth of applications of chemistry in criminology. From forensic science to criminal investigations, chemistry has proven to be a valuable tool in understanding and solving crimes.

One of the most prominent applications of chemistry in criminology is in forensic science. Forensic science is the use of scientific methods and techniques to investigate crimes and analyze evidence. This includes analyzing biological and chemical substances found at crime scenes, such as blood, semen, and other bodily fluids. Chemical analysis of these substances can provide information that can help investigators identify suspects, determine the cause of death, and even reconstruct a crime scene. For example, DNA analysis – a technique that relies heavily on chemical principles – has revolutionized forensic investigation by allowing investigators to link suspects to crimes through genetic evidence.

Another important application of chemistry in criminology is in the analysis of drugs and poisons. Drug abuse and drug-related crimes are major issues in many societies, and forensic chemists play a crucial role in their detection and prevention. Chemical analysis of illicit drugs can identify the type of drug, its purity, and its source. Likewise, analysis of poisons found in the body can identify the cause of death and lead to the apprehension of those responsible.

Chemistry is also used in the investigation of arson and explosives. Arson is a serious crime that can cause significant property damage and endanger lives. Forensic investigators use chemical techniques to identify the presence of accelerants, substances used to start and enhance fires, at crime scenes. These techniques can also help investigators determine the origin and cause of the fire. Similarly, chemical analysis is used to identify and analyze explosive materials, which can help in the prevention of terrorist attacks and other forms of violence.

In conclusion, the application of chemistry on criminology has proven to be a valuable tool in understanding and solving crimes. From forensic science to drug analysis to arson investigation, chemical analysis provides critical information that helps investigators piece together the puzzle of a crime. As technology and scientific methods continue to advance, the applications of chemistry in criminology will undoubtedly become even more important in the fight against crime.

Exploited resources

Kate Winkler Dawson-American Sherlock: Murder, Forensics, and the Birth of American CSI-, „G.P.Putnam’s Sons”, 2020.

Adrian Raine- The Anatomy of Violence(The Biological Roots of Crime)- „Vintage”, 2014.

Peter Joyce&Wendy Laverick-Criminology: A complete introduction-, „Teach Yourself”, 2020.