

## THE ROLE OF CHEMISTRY IN CRIMINALISTICS

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### Annotation:

The roots of this science go back centuries. It all started with the simplest chemical research methods. For example, instead of gold coins, scammers melted them from a mixture of copper, silver and gold. By choosing a combination of red and white metals, the scammers were able to preserve the color of the gold coins, reduce their gold content, or even dispense with this precious metal.

It has long been known that unscrupulous merchants mixed it with cream to increase their profits. To combat such scammers, overseers walked around the market, they had iodine solution in their hands, if iodine is added to a spoiled product, it immediately turns blue it was. The blue color is due to the interaction of iodine with starch. In the absence of starch, the addition of iodine does not cause bruising. The starch-iodine reaction is specific for both iodine and starch. At the same time, it is very sensitive, since the iodine solution changes color in the presence of a very small amount of starch.

Keywords: science, silver and gold, colored powder, carbon black, graphite and lead, Contrast, dark and colorless transparent, content and composition of alcohol.

### ,MAIN PART:

Criminology is a legal science about methods of investigating crimes, collecting and examining forensic evidence.

The science of criminology is a science that practically provides legal reforms aimed at ensuring the interdependence of theory and practice on the development of jurisprudence, legal education in the Republic of Uzbekistan. ☐ In forensics, chemical methods are used in the following cases:

search and storage of latent fingerprints;

- Identification of a person by analysis of the composition of DNA;

- search and identification of toxic substances, explosives, drugs;

- obtaining castings of shoe principles;

- analysis of the content and composition of alcohol;

- analysis of the composition of ink, paper and other means used in the preparation of documents;

- analysis of various pollutants.

Fingerprint

Do not exaggerate

Occurs when a criminal comes into contact with plastic materials such as wet, clay or oil-free paint.

Visible



Occurs when the offender's hands are covered with a colored substance at the crime scene.  
e.g. blood Hidden

Fingerprints are difficult to recognize, such as when the perpetrator is wearing gloves

Fingerprint detection methods:

Before

Fine colored powder (from carbon black, graphite and lead)

With transparent film

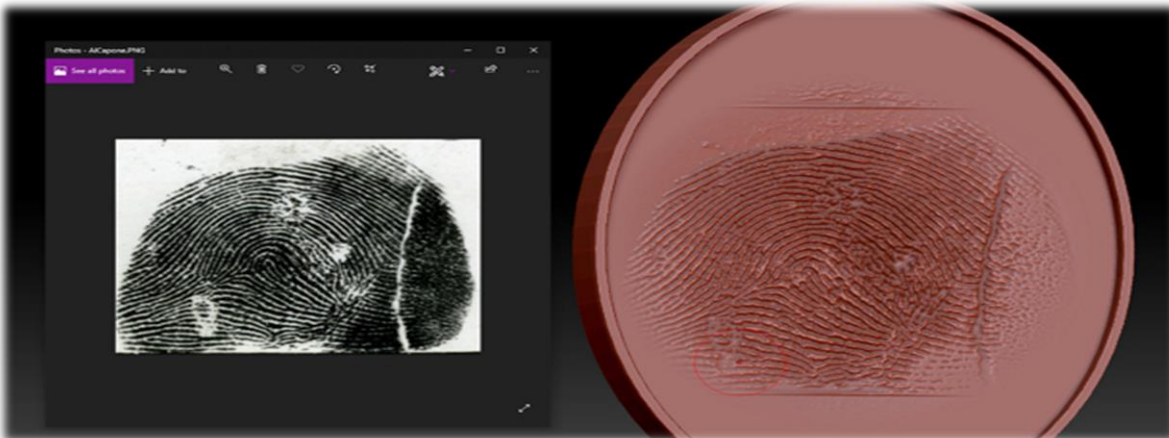


Now

Multi-colored powders (for contrast)

Magnetic powders

Molybdenum disulfide (MO<sub>2</sub>) - in the aquatic environment and during fires



Inspection of human footprints at the scene

The forensic significance of the traces is determined at the very beginning of the inspection of the crime scene and determines the possibility of their use to establish the true circumstances of the crime under investigation.

The main methods for obtaining traces:

1. With an object (carrier) or part of it.
2. By copying onto special films.
3. With the help of plaster casts.

The following materials can be used as tracing materials: - protective and absorbent (sometimes they say sticky, gelatinous) films for cars (dark and colorless transparent);  
- thick photo paper.



In 1840, the public of France, and indeed of the whole world, followed the trial of Marie Lafarge with intense attention. Brought up in the family of a vain but impoverished officer, this woman was seduced by the wealth of the rude and uncouth Charles Lafarge. However, immediately after wedding, it turned out that Charles had no fortune and loose rumors about his wealth were nothing more than a hoax; with the help of marriage, he wanted to improve his desperate financial situation. In those days, divorce was impossible, and the young wife decided to pour "powder for the heirs" on her husband. She bought arsenic and several doses at a pharmacy, allegedly purchasing rat poison. . She put all this poison in a separate box, and under the guise of rat bait scattered ordinary soda. Having finished all the preparations, Marie began to implement her plan and began to add a deadly "seasoning" to her husband's food. The doctor could not recognize the symptoms of poisoning in time, but the relatives of the patient suspected something was wrong. One day they hid the remains of a dinner prepared by Marie for her husband; however, this could not prevent the death of their relative. However, immediately after the funeral of Charles, a denunciation of the young widow followed. And the court had to decide whether the murder had been committed. In addition, such a task was already quite solvable, since a few years before this process, scientists learned to detect the presence of arsenic in the human body.

#### CONCLUSION:

In conclusion, in my opinion, it is impossible to correctly and fairly resolve the case, to ensure legal protection of human rights and freedoms in each case in court. By studying the science of criminology, it is possible to prevent the violation of the legal rights and freedoms of suspects, defendants and defendants, and fully guarantee the rights of the victim.

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