Abstract

iMedPub Journals
http://www.imedpub.com

Journal of Medical Toxicologyand Clinical Forensic Medicine

2021
Volume 8 S1

Detecting latent fingerprints on recyclable, compostable and biodegradable bags by using cyanoacrylate (superglue) fuming process..

Martin Stavrakov
Department of Health and Life Science, De Montfort University, Leicester, United Kingdom

Abstract

This dissertation aims to determine the quality and effectiveness of fingerprint development using the cyanoacrylate fuming method combined with BY40 on three types of plastic bags. During this experiment eight anonymous donors were gathered and each one of them deposited their fingerprints on three different types of plastic bags. The fingerprints collected for this experiment were deposited in controlled environment and the donors were asked to leave their fingerprints on the substrates in a specific manner. The plastic bags were made of different materials to test the performance of each one regarding fingerprint development, aging and depletion. Each donor was asked to deposit the same number of fingerprints on each substrate using the exact same finger, and substrates were tested in different periods of time. The method used for this experiment is known as cyanoacrylate fuming and it is well known method used in the forensic science field. After using the method each substrate was treated with BY40 dye in order to further enhance the fingerprint and take pictures of it. All fingerprints were photographed, and all results were documented appropriately. Cyanoacrylate method combined with BY40 staining showed significant results, most of the fingerprints were well developed and details of the ridge could be observed. With some exceptions most of the fingerprints were not affected by depletion or aging proving that the experiment was successful.

Biograph :

Martin Stavrakov has completed his BSc at the age of 22 years from De Montfort University and is currently undertaking MSc degree at King's College London.