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## **Development of Fingerprint with Lime Powder and Soft Brushes**

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### **Abstract**

Identification of sex plays a vital role in forensic investigation. Fingerprint are considered to be the most precise and reliable indicator for personal and gender identification .Fingerprints have been the gold standard for personal identification within the forensic community for more than 100 years. It is still universal in spite of discovery of DNA fingerprint .In this paper we tried to spot latent fingerprint with the help of lime powder. This powder is easily available in market amd have low cost .The fingerprint developed from this powder are very clear . Usually fingerprint are developed from Ostrich Brush which is comparatively high cost brush .And we had tried to develop fingerprint using soft Make Up Brush amd Flat Paint Brush.

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### **Main Text**

The Elevated surface on palms are known as Papillary junction ridges will have the valley formed between two ridges are known as furrows and grooves . The reproduction of pattern of the friction ridges on the distal phalanges of the fingers and thumbs are called as Fingerprints. The science of identification through fingerprint is known as Dactyloscopy.

The Fingerprints are of four types – Arches , Loops , Whorl and Composites.

In most of the crime scene fingerprint pattern are the common evidence and considered unique in nature. Even two Identical twins cannot have same Fingerprint. Fingerrints are used for Individualisation of person . On the basis of evidence fingerprint are of 3 types – Latent , Patent and plastic fingerprints.

For latent fingerprint there are so many techniques to develop it but most common technique to develop it but most common technique is Powder technique . There are so many powder techniques are there and for development of fingerprint usually Ostrich Feather Brush is used .

But in this paper we use soft hair make-up brush amd flat paint brush .The powder use is lime powder whichis less expensive and easily available in market.

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### **Methodology**

We developed Fingerprint using lime powder . Firstly take the Lime stone and let it in moisture , sun rays and in open environment . Then after few hours or a day , stone become swallow and we easily converted into powder form . then crush the stone and fully converted in fine powder .Then the fine powder is again sieved and collect that finest powder .

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### **Observation**



Figure -1



Figure -2



Figure -3



Figure - 4

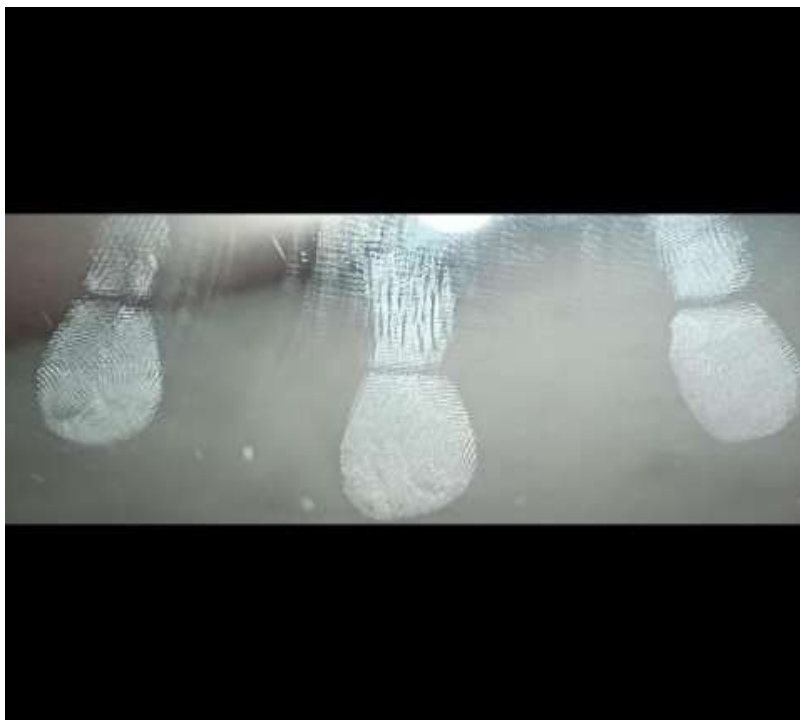


Figure - 5

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### Result And Discussion

The powder used for development of Fingerprint is finest sieved lime powder .And the brush used is soft hair make-up brush and flat paint brush . The developed fingerprint are very clear and easily identifiable as shown in Figures. The minutias and patters are easily distinguishable and clearly visible in figure 1 .

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### Conclusion

Fingerprint are most common and important evidence in Forensic Science .It is used for individualization of a person. The powders used for development of Fingerprint are very costly and chemical based. But here we developed the fingerprint using lime powder which is low cost and easily available in Market known as Chuna Powder .And the brush use for fingerprint development is Ostrich Feather Brush which is also costly .Here we use soft hairs make-up brush and paint brush for development which are comparatively low cost brushes.