

DEVELOPING LATENT FINGERPRINTS ON VEGETATION BY USING THE SUPER GLUE FUMING WAND

Now that the super glue fuming wands have been out for a few years, people have had an opportunity to use and experiment with them. I am one of those people. I have found that the wand provides a versatile tool for fixing or developing latent fingerprints on a variety of surfaces. These surfaces range from the normal, shiny and smooth, to the oil or grease covered. I have obtained identifiable prints from these and more.

One of the more interesting surfaces I have tried has been the shiny side of leaves. My presumption was, someone breaking into a building could have to push aside or otherwise handle shrubbery in order to gain access to the entry point. Why not try to process these bushes for evidence? Using a fuming wand and glue cartridges containing fluorescent dyes, I fumed several leaves that I had deposited latent fingerprints on. After the process was completed, I examined the leaves under a UV light source. The latents fluoresced immediately. In order to see if harvesting and storing would hurt the latent, I removed the leaf from the plant and placed it in a plastic sandwich bag. 2 days later I again exposed it to UV light. The latent had not deteriorated and was still identifiable.

This experiment was conducted on leaves with a shiny smooth surface common to plants found here in south Florida. Northern plants such as holly or rose bush leaves should work just as well. Fuzzy leafed plants would probably not yield very good results.

I recommend practicing with the wand and objects to be

processed. One trick to become familiar with is that the heat produced by the wand will scorch or burn the leaf. Hold the wand far enough away from the object being processed so only the fumes come in contact, not the heat. This will prevent destruction of the item being processed. A second matter of consideration is whether you intend to fix or develop the latent. Fixing is coating the latent with a light, nearly invisible, coating of super glue fumes. Developing it is to coat it with a coating that is visible. Fixing should be used anytime the item bearing the latent fingerprint has to be packaged and transported to another location such as a laboratory. This will protect the latent from being damaged in transit. Developing is used to make the latent fingerprint visible by coating it with enough super glue fumes to cause the ridge details to become white from the build-up. Care should be taken to not apply so much super glue fumes as to obliterate the latent fingerprint.

Photographing the developed latent fingerprint is done the same way as any other piece of evidence. If photographing the fluoresced latent, use f-16 or above and expose for no more than 8 seconds. These settings apply when using Ilford XP-2 black and white film. One advantage to using this film is that it can be developed using the standard color C-41 process. It is recommended to use a flat black piece of paper around the subject to absorb excess light and keep it from reflecting back into the camera lens. If simply photographing the developed latent fingerprint,

under normal lighting conditions, use standard metering techniques and exposure times.

When ever using the fuming wand, gloves, eye protection and a respirator with organic vapor or organic vapor/acid gas filters should be worn by everyone present during this operation. The purpose for this is that there is the possibility of the heating process producing vinyl cyanide gas in low percentages. Use of safety devices will protect those present.

It should be noted that this experiment was conducted under controlled conditions. Results obtained from actual field cases may vary. However, the potential for useful evidence obtained prove this source is obvious.

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Mr Ruslander (Rus) is one of two crime scene investigators with the City of Lake Worth, Florida Police Department. He has held that position since April, 1993. Prior to that, he spent 23 years as an officer and criminal investigator with the Prince George's County, Maryland Police Department. He also spent 14 years as a member and Deputy Chief of the Prince George's County Volunteer Fire Departments Dive Rescue and Recovery Team. Mr. Ruslander, in addition to his crime scene duties, classifies 10 print cards and teaches all newly hired police officers, police explorers and members of the Citizens Police Academy classes in crime scene functions. He has submitted articles for publication to The Journal of Forensic Identification as well as to the F.D.I.A.I. Newsletter.

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