

Marlo Masters
My Mom Was Robbed!!

The purpose of this project was to test what substance (black powder, white powder, red powder, fuming or fuming with black powder) would assist criminal investigators in achieving a greater than 3-5 percent success rate for viable fingerprints in areas of low humidity. I hypothesized that if the chemicals used to lift a fingerprint were combined (chemical fuming and powders) then the quality of the print and the value of the print (“five points of comparison”) would increase.

The experiment involved adding superglue to a fuming chamber to create a chemical reaction and building a sealed humidity chamber to create an atmosphere of “low humidity”. Also, the fingerprints were “dusted” with different types of powders (black, white and red), the prints were lifted with tape and the tape was placed on a labeled fingerprint card. The same subject was used for the control fingerprint and all fingerprints tested. The humidity levels and temperatures were measured with a humidity/temperature sensor, and used to determine the average humidity and temperature for all testing.

The data collected did not support the original hypothesis. The substance used did not affect the quality or viability of the fingerprint. The data was inconclusive due to the high random error. The fingerprints tested were too inconsistent to establish any one substance as better than the other in producing a higher quality fingerprint.

These findings lead me to conclude that no statistical difference was evident between the substances tested.