

LOW COPY NUMBER DNA: A PARADIGM SHIFT IN FORENSIC ANALYSIS?

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Recently forensic laboratories have been developing methodology for genotyping ultra-trace levels of DNA. Using these techniques, DNA extracts have been successfully amplified from car door handles, clothing, gun barrels and other unusual samples. A variety of techniques have been used to achieve these results including increased PCR cycles, reduced amplicon sizes, post amplification cleanup and increased injection times. These procedures, permit the identification of individuals from picogram quantities of DNA left behind at crime scenes. In this presentation the promise, the perils and pitfalls of these new techniques will be discussed and some discussion of how to develop more robust procedures for these types of samples will be made.