

P-144**Latent Fingerprint Detection by *Lawsonia Inermis***Bhavani Sivaraj¹, Norazah Basar^{1,*} and Ng Song Huat²

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A study on the usage of lawsone with the aid of black powder to enhance latent fingerprints on paper materials which was then compared with ninhydrin was done. Fraction containing lawsone was obtained through extraction from the leaves of *Lawsonia inermis*. The TLC result showed the presence of lawsone in the chloroform extract which was then subjected to fractionation through VLC. The presence of lawsone in the fraction was then confirmed using HPLC method. Materials such as newspaper, envelope, writing paper and tissue paper consisting, one week old and four months old fingerprints were used. Enhancement was done using ninhydrin standard solution, lawsone with the aid of black powder and the fraction containing lawsone with the aid of the black powder. The enhancement showed that the ninhydrin produced clear results for the new, one week old fingerprints on envelope and newspaper whereas unclear results for the new fingerprints on writing paper and old, four months old fingerprints on all the paper materials tested. Whereas both lawsone and fraction containing lawsone with the aid of black powder produced clear results for both the new and old fingerprints instilled on paper materials such as envelope, writing paper and newspaper. Tissue paper could not be enhanced using ninhydrin, standard lawsone or fraction containing lawsone with the aid of black powder.

Keywords: Lawsone, ninhydrin, black powder, paper materials.
