

## Reduce waste and go back to nature for fingerprint visualization needs

**Sri Adelila Sari**

*Medan State University, Indonesia*

Fingerprints are one of the tools in forensic investigations to identify humans. The visualization method of interest must be simple and does not require a long identification time, namely by using commercialized powder. However, although this method is relatively fast and simple, the ingredients in the powder are toxic chemicals. This study proposed to reduce waste and go back to nature by using waste of fruit, herbs, tuber, and leaves. Besides this materials were easy to obtain, they were also inexpensive, and environmental friendly. The findings revealed that these waste and natural materials were able to visualize latent fingerprints on various types of dry, porous and non-porous surfaces. This research found that the visualized fingerprint quality was influenced by different particle sizes of materials and surface types. Fingerprint patterns were also good analyzed based on gender, ethnicity, and blood type. Hence, the findings in this study can be used as the basis for fingerprint visualization technology that minimizes environmental pollution due to waste and utilizes natural materials for safety. In addition, the process should be more effective and efficient.

### Biography

Sri Adelila Sari. She has completed undergraduate studies at the State University of Medan (UNIMED), Indonesia in chemistry education (1995). Master program at Gadjah Mada University (UGM) Yogyakarta, Indonesia in environmental science (1998), and Ph.D in chemistry at Universiti Teknologi Malaysia (UTM) in chemistry (2007). She has been an expatriate lecturer at TATI University College (1999-2003) and Universiti Malaysia Terengganu (2005- 2007). Served as a lecturer at Syiah Kuala University (2006-2017) and at Medan State University (since 2017).