

**PENGGUNAAN BAHAN ELASTOMER DAN HIDROKOLOID UNTUK
IDENTIFIKASI INDIVIDU MELALUI ANALISIS BITEMARK
(STUDI OBSERVASIONAL MAHASISWA FKG UNAIR)**

**USE OF ELASTOMER AND HYDROCOLOID MATERIALS FOR INDIVIDUAL
IDENTIFICATION BY BITEMARK'S ANALYSIS
(OBSERVATIONAL STUDIES OF AIRLANGGA UNIVERSITY STUDENTS)**

ABSTRACT

Background: Bitemark provide some sort of identification of the teeth and give details of the type that is comparable to a very small detail previously thought may be given only by fingerprint. Forensic odontologists role is to collect, preserve, evaluate and interpret bitemark. Analysis and comparison of bite is a complex process and continues to grow by leveraging the latest technological inventions. Uniqueness and characteristics of the teeth on each individual is different, the level of accuracy associated teeth against injury pattern is often used in the identification. One of many methods that is commonly used to analyze the bite mark is overlay comparison method and techniques required to be non-distorted. **Purpose:** The aim of this study is to search for materials that can be used in the analysis and identification of bitemark affordable and easily obtained with an easy and simple method. **Method:** 6 apples were bitten by volunteers, then the mesial distal incisal of 12, 11, 21, 22, 32, 31, 41, 42 teeth measured by ABFO scale no. 2. After these measurements, performed docking techniques in dental models and models bitemark. Difference of measurement was analysed using Kruskal Wallis test and Mann-whitney test. **Result:** The statistical analysis shows significancy number for bitemark on apple and addition silicon is 0.22, for bitemark on apple and alginate is 0.009, for bitemark on apple and polieter is 0.870. It means there is significant difference between addition silicon, alginate and polieter. Addition silicon is better by using for bitemark anylisis because it has the best accuracy. **Conclusion:** Addition silicon is elatomers material which has the best accuracy than polieter and alginate.

Keywords: bitemark , elastomers, hydrocolloid.