

Thesis Title                      Time Estimation by Reaction of Gunshot  
Residue by Spectrophotometer  
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#### ABSTRACT

Examination of gunshot residues (GSR) in barrel have long been importance as evidence in the investigation of firearms cases. In the present time, no paper about timing after shooting.

In this paper, Estimation of the time lapse since firearm was fired, by firing the gun in different time, take the gunshot residues in the barrel which is brought about from incomplete combustion to the chemical reaction and measure the absorbance (O.D.) by Spectrophotometer.

The study 2 types, 4 categories of gun was tested, revolver .22, .38 and automatic 9, 11 mm. From the test, the absorbance from gunshot residues in each type has different values in different time. Then the measured absorbance in the graph of relationship between the

absorbance and time can estimate the time being till 1 month (30 days), however, the time factor, chemical changes of the gunshot residues were depending on the type of gun, size, barrel length and the cartridge has to be the same type, size too.