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Title: Quantifying chemiluminescence of the forensic luminol test for ovine blood in a dilution and time series

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Title**Quantifying chemiluminescence of the forensic luminol test for ovine blood in a dilution and time series****Author names and affiliations**

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Highlights

- Quantifying chemiluminescence reveals times series trends in blood-luminol reactions (84)
- RLUs and qualitative imaging provide a robust method to characterize the reaction (81)
- Intensity maxima and half-lives vary with dilution and between fresh or dried blood (83)
- Characterization has applications in luminol photography and fluid comparisons (81)

Abstract

This study investigates the chemiluminescent reaction of whole ovine blood to a luminol solution in time and dilution series. Replicate samples of both fresh and dried certified pathogen-free ovine blood were prepared and diluted. Seven dilution conditions from neat to 1:1 000 000 were created for testing. A luminol solution, created using the standard Weber protocol, was applied to all samples in controlled laboratory conditions. A SpectraMax® M3 microplate reader luminometer was used to quantify the chemiluminescence from the reactions as relative

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