

Notes on calibration

1 Introduction

These notes summarize the calibration procedure used for the bench detector. The full protocol is published in the [documentation](#), and questions can be sent to support@mathpix.com.

2 Method

Each run starts from a cold detector and follows the steps of the previous chapter.

2.1 Reference compound

Caffeine is used as the reference compound because its response is stable across the temperature range of interest.

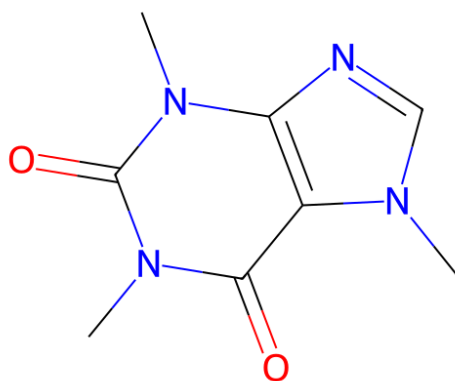


Figure 1. Caffeine, $C_8H_{10}N_4O_2$.

3 Results

The response was linear in the measured range, with a slope of $k = 0.42 \text{ mV/K}$ and an intercept indistinguishable from zero.

A second series at a lower flow rate reproduced the slope within one percent.