

## **Abstract**

My thesis focuses on building a web based application for analysing thermal curves showing hysteresis. In the past this is a process that requires the use of many different software products. Recently, a unified procedure to conduct this analysis using **R**, an open source statistical language [Jhimli Bhattacharyya et al. *An Unified Statistical Procedure to Analyse Irreversible Thermal Curves*], was established. Based on this procedure, an application was developed. It takes the data on the thermal curves as inputs, runs the analysis automatically and outputs the results together with visualization. This paper first presents the theories behind this process and the statistical methods involved. Then it gives an overview of the application. Potential improvements are also discussed.