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## Introduction

Here we show how local depth resolution can be achieved via stand-off Raman spectroscopy on two selected samples.

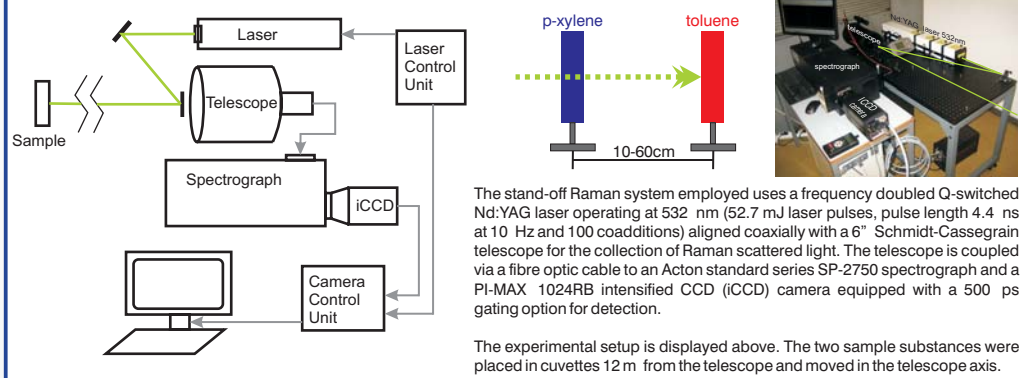
p-xylene and toluene in cuvettes were placed at varying distances to each other starting at 12 m distance from the telescope.

We present two different approaches for processing the data.

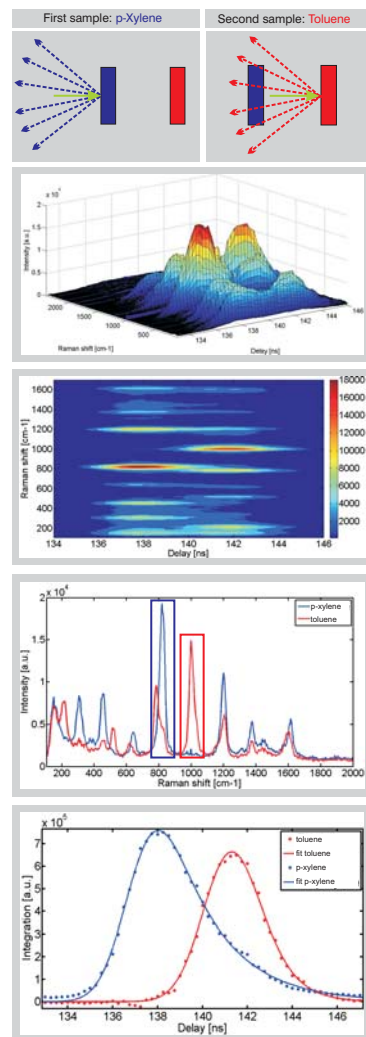
First, characteristic Raman bands of the samples were used to determine their position. Second, MCR-ALS was used to calculate the samples positions.

The two methods were compared to each other and a validation performed.

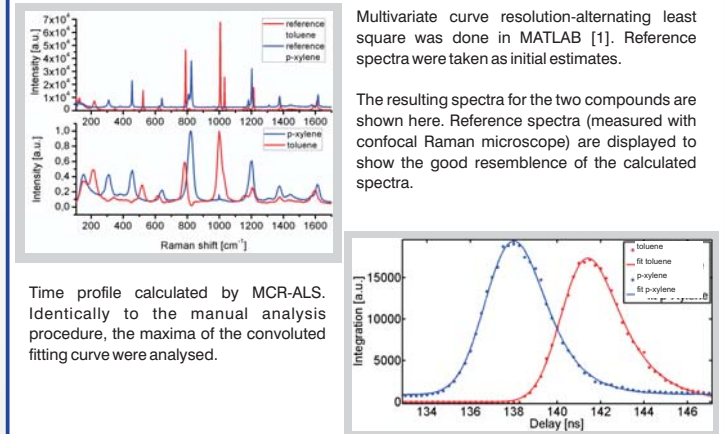
## Stand-off Raman Instrumentation



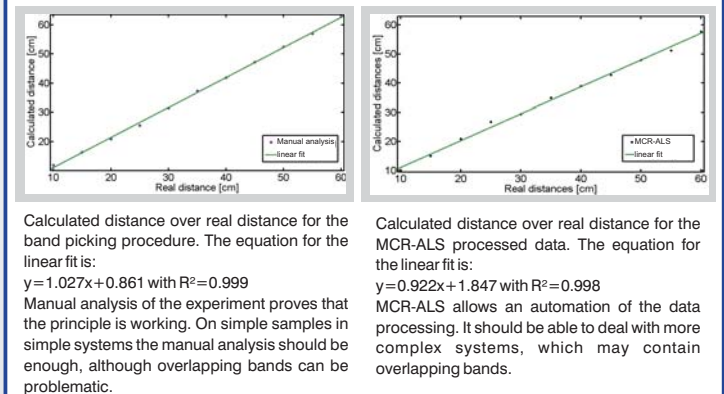
## Manual analysis



## Automation with MCR-ALS



## Conclusion



## Reference

- J. Jaumot, R. Gargallo, A. de Juan, and R. Tauler, "A graphical user-friendly interface for MCR-ALS: a new tool for multivariate curve resolution in MATLAB," *Chemometrics and intelligent laboratory systems*, vol. 76, 2005.