

## Supplemental information for PhD thesis RF Kranenburg

The supplemental information for the chapters in the thesis 'Novel Approaches for Illicit-Drug Identification in Forensic Investigations' can be found via the following links:

**Chapter 2 Distinguishing drug isomers in the forensic laboratory: GC-VUV in addition to GC-MS for orthogonal selectivity and the use of library match scores as a new source of information**

DOI: 10.1016/j.forc.2021.100346

[direct link to supplemental information \(pdf file\)](#)

**Chapter 3 Spotting isomer mixtures in forensic illicit drug casework with GC-VUV using automated coelution detection and spectral deconvolution**

DOI: 10.1016/j.jchromb.2021.122675

[direct link to supplemental information \(pdf file\)](#)

**Chapter 4 Deliberate evasion of narcotic legislation: trends visualized in commercial mixtures of new psychoactive substances analyzed by GC-solid deposition-FTIR**

DOI: 10.1016/j.forc.2021.100346

[direct link to supplemental information \(pdf file\)](#)

**Chapter 5 Revealing hidden information in GC-MS spectra from isomeric drugs: chemometrics based identification from 15 eV and 70 eV EI mass spectra**

DOI: 10.1016/j.forc.2020.100225

[direct link to supplemental information \(pdf file\)](#)

**Chapter 6 Benefits of derivatization in GC-MS-based identification of new psychoactive substances**

DOI: 10.1016/j.forc.2020.100273

[direct link to supplemental information \(pdf file\)](#)

**Chapter 7 Mass-spectrometry-based identification of synthetic drug isomers using infrared ion spectroscopy**

DOI: 10.1021/acs.analchem.0c00915

[direct link to supplemental information \(pdf file\)](#)

**Chapter 8 Isomer-specific two-color double-resonance IR<sup>2</sup>MS<sup>3</sup> ion spectroscopy using a single laser: application in the identification of novel psychoactive substances**

DOI: 10.1021/acs.analchem.0c05042

[direct link to supplemental information \(pdf file\)](#)

**Chapter 9 Performance evaluation of handheld Raman spectroscopy for cocaine detection in forensic case samples**

DOI: 10.1002/dta.2993

[direct link to supplemental information \(pdf file\)](#)

**Chapter 10 Electrochemical detection of MDMA and 2C-B in ecstasy tablets using a selectivity enhancement strategy by in-situ derivatization**

DOI: 10.1016/j.forc.2021.100383

[direct link to supplemental information \(pdf file\)](#)

**Chapter 11 The importance of wavelength selection in on-scene identification of drugs of abuse with portable near-infrared spectroscopy**

DOI: 10.1016/j.forc.2022.100437

[direct link to supplemental information \(pdf file 1 of 2\)](#)

[direct link to supplemental information \(pdf file 2 of 2\)](#)

DOI: 10.1016/j.dib.2022.108660

[corresponding data article](#)

DOI: 10.21942/uva.21252300

[dataset \(zip file\)](#)

**Chapter 12 The influence of water of crystallization in NIR-based MDMA·HCl detection**

[direct link to supplemental information \(pdf file\)](#)

**Chapter 13 Rapid and robust on-scene detection of cocaine in street samples using a handheld near-infrared spectrometer and machine learning algorithms**

DOI: 10.1002/dta.2895

[direct link to supplemental information \(docx file\)](#)

**Chapter 14 On-site illicit-drug detection with an integrated near-infrared spectral sensor: a proof of concept**

DOI: 10.1016/j.talanta.2022.123441

[direct link to supplemental information \(pdf file\)](#)

**Chapter 15 A calibration friendly approach to identify drugs of abuse mixtures with a portable near-infrared analyzer**

DOI: 10.1002/dta.3231

[direct link to supplemental information \(pdf file\)](#)

**Chapter 16 On-site forensic analysis of colored seized materials: detection of brown heroin and MDMA-tablets by a portable NIR spectrometer**

DOI: 10.1002/dta.3356

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**Chapter 17 Portable near-infrared spectroscopy for the isomeric differentiation of new psychoactive substances**

DOI: 10.1016/j.forsciint.2022.111467

[direct link to supplemental information \(pdf file\)](#)