



#### **DRUG ANALYSIS IN HAIR**

by The National Institute of Criminalistics and Criminology

### / CONTEXT

Within the context of drug analysis in hair new protocols have been developed to establish the toxicological profile of a patient. Those techniques involve constraints as low volumes and concentrations and absence of crosscontamination. Before the analysis by HPLCMS/MS, the samples had to be reduced in powder form. See also the publication 1. Journal of Analytical Toxicology, Vol. 29, Oct 2005 2. Anal Bioanal Chem DOI 10.1007/s00216-007-1297-9

## / MATERIALS

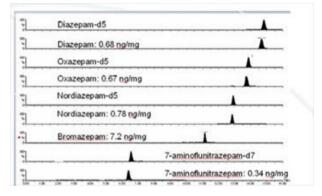
- Precellys®24 equipment.
- Precellys<sup>®</sup> kit MK28 (metal beads).
- Sample : 1cm hair segments.
- Buffer : empty.

# / PROTOCOL

Precellys®24 parameters: 6500 rpm, 2x50 sec., 15 sec. Break.

# / RESULTS

Analysis of an authentic hair sample by HPLC-MS/MS with the following steps : 1. Decontamination (Dichloromethane) 2. Grinding (**Precellys®24**) 3. Incubation (Methanol) 4. Centrifugation 5. Evaporation 6. Filtration 7. Analysis by HPLC-MS/MS



NICC, Belgium January 2005



#### / CUSTOMER



### / CONCLUSION

**Precellys**<sup>®</sup>**24** is successfully evaluated on hair grinding, which is considered a difficult and challenging sample. Results of toxicology tests in crime labs are now faster.



#### Liste des produits

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