Characterization of Opiates in Human Breath of Patients within Intensive Care Units

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Ion mobility spectrometry coupled to a multi-capillary column (MCC/IMS) was used in anesthesia to detect signals related to opioids in the breath directly.

Besides the successful determination of Propofol at concentration levels with relevance for applications in the operational theatre the detection of opioids in human breath should be considered. We selected Fentanyl, Sufentanil, Remifentanil, Piritramide and Pethidine for measurements in the breath of patients using BioScout.

Results of measurements of Opiates in the breath of patients obtained in the operation room directly and of validations in the laboratory including GC/MSD reference investigations will be presented.

Analyzing opioids in breath using MCC/IMS takes the potential of continuous application in intensive care.