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Towards a Laser-IMS tool for the real-time detection of adsorbed compounds

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IMS remains the reference technic for real-time sensitive detection of toxic and explosives. Numerous extension of the original method have been proposed [1, 2].

In this communication, we tested the coupling of an IMS with an ultrafast laser source. Such sources are used routinely in surface abrasion and decontamination. We tested if such processes could be coupled to a real-time IMS thus providing a coupled analysis/decontamination strategy.

We compared the IMS signal under laser irradiation with the one from thermo-desorption on porous substrates of different colors.

[1] C. Steppert et al. *J. Breath Res.*, 15 027105, 2021

[2] J. E. Krechmer et al. *Atmos. Meas. Tech.*, 9, 3245–3262, 2016