

**Presentations in the context of the supporting seminar to the practical course „Trace Analysis II“
(WiSe 2024/2025) (updated on 13.02.2025)**

Student	Supervisor	Question
Kiszelis	Schulz smaximil@uni-mainz.de	What limitations are associated with the introduction of liquid samples into an inductively coupled plasma if this is done conventionally, and what alternatives exist in the area of liquid sample introduction?
Andonovska	Schulz smaximil@uni-mainz.de	Which problems are associated with the calibration of LA-ICP-MS and how can the calibration be performed by means of standard addition?
Baukholt	Rautenberg wrautenb@uni-mainz.de	What is the application of MALDI Imaging in the field of paleontology?
Beganovic	Müller muyannik@uni-mainz.de	Which ionization method produces an afterglow at atmospheric pressure in mass spectrometry?
Busch	Geil bageil@uni-mainz.de	How does a PDD work and which substances can one measure with it that are difficult to detect using MS?
Elbishbishy	Rabe anrabe@uni-mainz.de	How does SALDI mass spectrometry contribute to quality assurance and the development of innovative cosmetic products?
Görtz	Hildmann sthildma@uni-mainz.de	How can the MION Orbitrap be applied in non-target analyses of atmospheric samples, and how does its high resolution contribute to identifying unknown compounds in the air?
Grölz	Müller muyannik@uni-mainz.de	How can you identify organic components on surfaces in real time at atmospheric pressure?
Han	Rautenberg wrautenb@uni-mainz.de	How does ion mobility spectrometry improve the quick and accurate detection of explosive substances?
Hartmann	Geil bageil@uni-mainz.de	How can you measure halogen species in the gas phase (x^0 , x^{-1} , x^{+1})?
Haxha	Karbach n.karbach@uni-mainz.de	How can electrochemical gas sensors be calibrated?
Krajewski	Eckert neckert@students.uni-mainz.de	How can trace metals in glass be determined directly without digestion?

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Lehmann	Rautenberg wrautenb@uni-mainz.de	How can one analyze the particle and gas phase of an organic aerosol in a single instrument?
Müller	Schäfer sjohann@uni-mainz.de	How would you perform trace analysis of steroids in water samples?
Reinhard	Hildmann sthildma@uni-mainz.de	How is aerosol mass spectrometry (AMS) revolutionizing our understanding of the complex chemistry and impact of atmospheric aerosols on air quality and climate?
Sauer	Karbach n.karbach@uni-mainz.de	How can SO ₂ be measured in volcanic plumes?
Sulzbacher	Schulz smaximil@uni-mainz.de	What are the issues associated with the determination of non-metals using atomic spectrometry and how can such a determination still be made?
Velten	Schäfer sjohann@uni-mainz.de	How can you gain information about past vegetation changes using IRMS?