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Supervisor's Name: **Ing. Jaroslav Schwarz, CSc.**

Links to supervisor's webpages:

[Ing. Jaroslav Schwarz, CSc. | Ústav chemických procesů AV ČR, v. v. i.](#)

[Ústav chemických procesů AV ČR, v. v. i. \(ÚCHP\) - oddělení](#)

[Jaroslav Schwarz - Web of Science Researcher Profile](#)

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Dissertation Topic: **Metals in Atmosphere**

Brief description of the dissertation:

**Atmospheric particulate matter (PM) is often a matter of concern due to its adverse effects on human health, ecosystems, and climate. Metals, originating from both natural and anthropogenic sources, are crucial constituents of PM and serve as reliable indicators for source identification during air quality assessments. We utilise X-ray fluorescence (XRF) spectroscopy for real-time, multi-elemental analysis of atmospheric metals. This high-resolution approach enables tracking short-term concentration dynamics and strengthens the source identification process. Integrated XRF data will support a deeper understanding of the physico-chemical behaviour of metal-bearing aerosols, informing source apportionment and targeted air quality management and mitigation strategies.**

Date of commencement of studies, year: **October 2024**