

Director
of Nanotechnology Centre
VSB - Technical University of Ostrava
announces a selection procedure for a post of
Distinguished Research Professor
in Spectroscopy and Surface Nanostructure Engineering at EBEAM
for EBEAM Centre

The position is suitable for both women and men.

Drive Innovation in Post-Synthesis Characterization of Advanced Nanomaterials

Are you a recognized leader in vibrational spectroscopy and materials diagnostics, eager to contribute to cutting-edge developments in nanostructure engineering? The Electron Beam Precision Manufacturing (EBEAM) Centre, under the leadership of Prof. Mark H. Rummeli, seeks a Distinguished Research Professor to enhance its capabilities in ex situ surface and material characterization following precision electron beam-based synthesis.

Position Overview:

In this role, you will lead research into post-synthesis characterization of nanostructures using advanced vibrational spectroscopies (e.g., Raman, FTIR, SERS), contributing crucial insights into material properties, surface chemistry, and structural dynamics. While your core expertise will focus on ex situ diagnostics, there is also scope to explore in situ spectroscopy integration with electron beam processes, depending on future research development. For more details, see <https://ebeam.vsb.cz/>.

Key Responsibilities:

- **Advanced Characterization:** Apply Raman, FTIR, and complementary spectroscopic tools to analyze materials synthesized using SEM and gas-assisted electron beam techniques.
- **Surface Chemistry & Diagnostics:** Investigate material interfaces, nanostructure composition, and morphology to inform synthesis feedback and optimization.
- **Collaborative Development:** Partner with EBEAM's fabrication teams to enhance synthesis strategies with spectroscopy-driven insight.
- **Scientific Leadership:** Mentor early-career researchers, lead interdisciplinary collaborations, and contribute to strategic research planning.
- **Strategic Growth:** Help expand the Centre's research scope into spectroscopy-enhanced precision nanomanufacturing.

Full time equivalent:

Full-time/part-time

Type of job contract:

Fixed-term (with potential extension)

Expected start of employment:

August or September 2025

Location:

Ostrava, Czech Republic

Number of Positions:

1,00

Essential Qualifications:

- Holding the academic title of Professor (or equivalent) as recognized by national standards.
- International reputation in vibrational spectroscopy, materials characterization, or surface chemistry.
- Strong background in ex situ spectroscopic techniques (e.g., Raman, FTIR, SERS) applied to nanomaterials and functional surfaces.
- Familiarity with SEM, thin-film systems, or material interface analysis is advantageous.
- Proven success in scientific leadership, project management, and mentoring.

Why Join the EBEAM Centre?

- **Specialized Focus:** Join a centre dedicated to electron beam nanomanufacturing with a strong emphasis on surface and structural characterization.
- **Strategic Role:** Contribute to EBEAM's expansion and integration into the Centre for Nanotechnology (CNT) at VSB-TUO.
- **World-Class Facilities:** Access advanced SEM, UHV systems, and spectroscopy tools in a collaborative, international environment.
- **Scientific Impact:** Influence the next generation of materials diagnostics and fabrication science.

We offer:

- work in a promising organization
- salary evaluation according to the candidate's experience
- access to cutting-edge laboratory infrastructure
- opportunity to participate in excellent research
- possibility of further education
- 6 weeks of holidays
- flexible working hours
- university kindergarten
- contribution to pension plan
- company catering in the canteen
- MultiSport card
- other employee benefits according to the employer's offer

The EBEAM Centre values diversity and inclusion. We welcome applicants of all backgrounds and are committed to providing a supportive and collaborative workplace. Working language: English.

Send your CV and a cover letter to:

Prof. Mark H. Rümmeli – mhr1@vsb.cz

Vaclav Baron – vaclav.baron@vsb.cz

Email Subject: DISTINGUISHED RESEARCH PROFESSOR IN EBEAM CENTRE

Please apply before 31. 8. 2025

Your personal data will be processed to the extent necessary for the implementation of the selection procedure in accordance with EU Regulation 2016/679.

<https://www.vsb.cz/export/sites/vsb/en/.content/files/Informace-pro-uchazece-o-zamestnani-AJ.pdf>

Candidate selection will be based on research credentials, hands-on expertise, scientific vision, and alignment with the EBEAM Centre's strategic mission.

This position is funded by the European Union's Horizon Europe research and innovation programme under grant agreement No. 101087143.



**Funded by
the European Union**

17. listopadu 2172/15
708 00 Ostrava-Poruba
Czech Republic

attendant: +420 597 321 111
ID data mailbox: d3kj88v

IČO: 61989100
VATIN: CZ61989100

email: university@vsb.cz
www.vsb.cz