

CEIPEX MU TOPIC 12

Položka / Field	Obsah / Content
NAME	Pavel Kadeřávek, Ph.D.
CEIPEX RESEARCH TOPIC LEVEL2	Advanced Nano & Micro technologies: Magneto-optical & THz spectroscopy
NAME OF THE RESEARCH GROUP	Magneto-optical & THz spectroscopy (Petr Neugebauer) together with Dadok National NMR Center
TOPIC	Frascan II: methods and applications
ABSTRACT	One of the largest issues nowadays is efficient magnetic resonance spectroscopy, including NMR spectroscopy. This postdoctoral project focuses on the optimization and applications of the newly developed FRASCAN II spectrometer, which currently enables liquid high-field ^1H, ^{13}C, ^{31}P,... NMR, 329 GHz ESR, and DNP. The candidate will focus on: • NMR and DNP experiments of biomolecules • implement and troubleshoot methodology for a frequency-swept and rapid scan ESR of radicals in liquids. • Seek potential applications of the developed methodology and its modification to other areas of chemical research – environmental studies, semiconductor industry,... • Closely collaborate with CEITEC MUNI and other CEITEC group partners.
WEBPAGE OF THE RESEARCH GROUP	Josef Dadok National NMR Centre https://spectroscopy.ceitec.cz/