

Postdoctoral position available in Prague

Topic: Voltage-induced spin orbit effects in molecular wires

Start: October 1st 2022

Duration: 1 year, with optional extension up to 2.5 years total

Principal investigator: Dr. Richard Korytár
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web: <http://ctcm.kfkl.cz>

Salary: (monthly after taxes): approx. 40 000 Kč (1600 EUR)

Benefits: travel budget to present results of the project

Host: The research will take place at the Department of Condensed Matter Physics of the Charles University (Prague), in the Theory Group <http://theory.kfkl.cz>

Requirements: First-principles calculations of electronic structure based on density-functional theory (must have). Theoretical background from either solid-state or quantum chemistry (must). Optionally, quantum transport and experience with (relativistic) spin-orbit calculations.

Project description: Evaluate electronic spin-orbit fields induced in molecular wires by the voltage. The purpose of this effort is to investigate a possible mechanism of chirality-induced spin-selectivity. Some experimental collaborations are possible (e.g. with Jana Vejpravová (Prague) and Prof. Oren Tal (Weizman)).

Applications: Apply via the link
<https://bit.ly/3bglaY3>