

# **Seminář odd. 26**

## **Tenkých vrstev a nanostruktur**

*Fyzikální ústav AVČR, Cukrovarnická 10, Praha 6*

*datum:* 14. 1. 2014 úterý

*čas:* 10:00

*mítnost:* knihovna, budova A, 1.p.

TÉMA

### **Thermoelectric properties of molecular junctions**

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I present general expressions for the low-temperature thermoelectric coefficients of atomic junctions. These results are used to analyze general trends in the thermoelectric properties of atomic and molecular junctions. In particular, I study the Seebeck coefficient and figure of merit of a series of molecular wires made of porphyrin units with different metallic atoms in the core. I show how these coefficients depend upon the specific electronic structure of the metallic atom and its coupling to the molecular wire.

odborný garant: *Ing. Pavel Jelínek, Ph.D.*