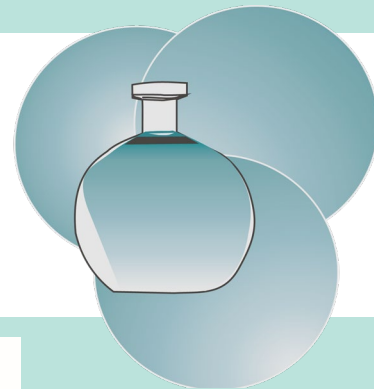


Fakultät für Naturwissenschaften

Institut für Chemie



lädt ein

gemeinsam mit der Gesellschaft
Deutscher Chemiker
zum

Vortrag von

**Frau Prof.
Karen Kavanagh**

Department Physics

**Simon Fraser University
Burnaby, Canada**



“Semiconductor Nanowire Contact Formation and Junction Detection”

am: 20. April 2023

um: 16:00 Uhr

wo: im Raum 1/232

Die kleine Kaffeerrunde vor dem Vortrag
beginnt um 15:30 Uhr im Raum 1/232.
Das Mitbringen von eigenen Trinkgefäßen
ist erwünscht.



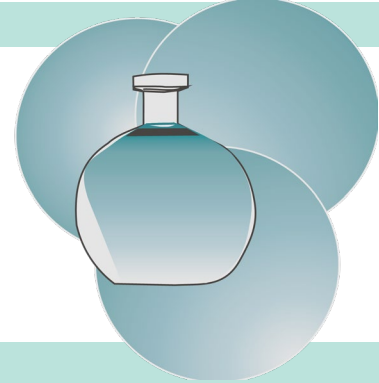
TECHNISCHE UNIVERSITÄT
IN DER KULTURHAUPTSTADT EUROPAS
CHEMNITZ

Gäste sind herzlich willkommen!

Prof. Dr. Michael Sommer

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**Frau Prof.
Karen Kavanagh**

Department Physics

**Simon Fraser
University Burnaby,
Canada**



**„Semiconductor Nanowire Contact Formation and
Junction Detection“**

Abstract - Semiconductors nanowires are often grown by chemical vapour deposition (CVD) using metal catalysts. These form convenient contacts at one end which can be electrically probed in situ using scanning electron microscopy to study their properties. Electrodeposition can be used to increase the contact area or to add magnetic metals. The incorporation of dopant impurities into the nanowire during CVD forms potentially, axial and radial electrical junctions, useful for nanoscale diodes and transistors.

Potential barriers and space-charge regions exist due to the anticipated gradients in carrier concentrations.

This talk will discuss results from electron microscopy to image the crystalline structure of nanowire junctions and to detect their presence using electron holography.