

**DEPARTMENT OF MECHANICAL ENGINEERING****SEMINAR****Online**

Title: Strategies for lowering down the contact resistance of organic field-effect transistors

Speaker: Mr. Wanli Yang (PhD candidate)
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Date: 30 April, 2021 (Friday)

Time: 4:00 p.m. (Hong Kong Time)

Zoom meeting: 1) Link to join the meeting:

<https://hku.zoom.com.cn/j/4454663155?pwd=VIJRCndDeUZBQnVZTkx6NFpSR3g2dz09>

2) Meeting ID: 445 466 3155

3) Password: 363543

Abstract:

The contact resistance in organic field-effect transistors (OFET) is one of the important factors limiting the charge injection through the metal/semiconductor interface. The misalignment between the fermi level of metal electrode and Lowest Unoccupied Molecular Orbital (LUMO) for n-channel transistors or Highest occupied Molecular Orbital (HOMO) for p-channel transistors and the access resistance through multilayers are two bottlenecks blocking the lowering of contact resistance. In this presentation, the dopants engineering applied on the metal/semiconductor interface adjusting the energy level of metal electrodes and the orientation alignment of organic semiconductor by solution shearing are two effective strategies to overcome the challenges mentioned above.

ALL INTERESTED ARE WELCOME

For further information, please contact Dr. P.K.L. Chan at 3917 2634.

Research area: Advanced Materials