

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

Title: Crystal structures of ternary nitride materials under high pressure

Speaker: Mr. Yang Tiancheng (PhD candidate)
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Date: 4 May, 2022 (Wednesday)

Time: 10:30 a.m. (Hong Kong Time)

Zoom meeting: 1) Link to join the meeting:

<https://hku.zoom.us/j/92515100337?pwd=VURPUzhmYUxySUFvZFFrZUZyeDY5UT09>

2) Meeting ID: 925 1510 0337

3) Password: 220504

Abstract:

Nitrides have shown great ability in many fields and have been widely used in industry and research. Compared with binary nitrides, which have been relatively well studied, ternary nitrides have more diverse chemistries and structures, which make them attractive for multiple applications. High-pressure techniques have shown the ability in synthesizing new materials and altering their behaviours. Herein, we aim to conduct a comprehensive study of several ternary nitride materials under high pressures using combined theoretical and experimental techniques. Based on computational research, stable crystal structures and their properties can be predicted, and potential high-performance materials will be selected. The ternary nitride materials will be further synthesized using experimental high-pressure methods. I will introduce the progress and key computational and experimental methods in this presentation.

ALL INTERESTED ARE WELCOME

For further information, please contact Dr. Y. Chen at 3917 7095.

Research area: Advanced Materials