

### SHORT BIO

I mainly use the first principles to calculate the mineral generation conditions and the generation of minerals in meteorites. It includes energy band calculations on physical properties, density of states, phonon spectra, Fermi surfaces, transition state search on magnetic analysis or synthesis, adsorption, etc.

In terms of experiments, I am mainly interested in phase determination and physical property measurement, such as XRD structure determination, XRD Rietveld, atomic force microscope measurement, dielectric constant measurement and electron microscope with EDS, electron probe, energy spectrometer and Raman spectroscopy, etc.

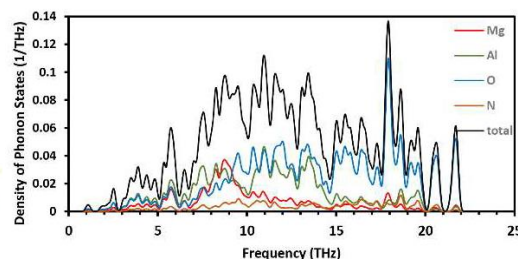
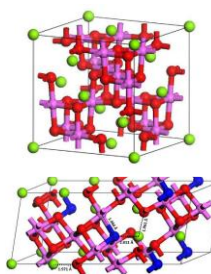
Asst. Prof.

**Chi Pui Tang**



PhD: Condensed Physics - Nanjing University (2014)

B.Sc.: Physics - Nanjing University (2009)



Phonon density of states of  $\text{MgAl}_2\text{O}_{3.5}\text{N}_{0.5}$

### KEY PUBLICATIONS

**Chi Pui Tang**, P. K. Leong and T. Sekine, 2019.

*The first-principle study of electronic structure and thermoelectric properties of N doping spinel. JPGU*

**Chi Pui Tang**, et al., 2016.

*The structure and electronic properties of hexagonal  $\text{Fe}_2\text{Si}$ . AIP Advances*

**Chi Pui Tang**, et al., 2014.

*Two-dimensional pentagonal crystals and possible spin-polarized Dirac dispersion relations. Journal of Applied Physics.*

### PROFESSIONAL EXPERIENCE

**Ongoing – 2016 – Macau University of Science and Technology, Macao (China) – Asst. Prof.**

**2017 (Sept. – Dec. ) – University of California, Los Angeles (UCLA), Earth, Planetary, and Space Sciences – Vis. Asst. Res.**

**2014 – 2016 – Macau University of Science and Technology, Macao (China) – Post Doctoral**

### GRANTS

**FDCT – 2021-2022 – Principal Investigator**

The cause and mechanism to accommodate certain elements in meteoritic silicates

**FDCT – 2017-2020**

Geochemical studies of Chang'e-5 lunar samples