

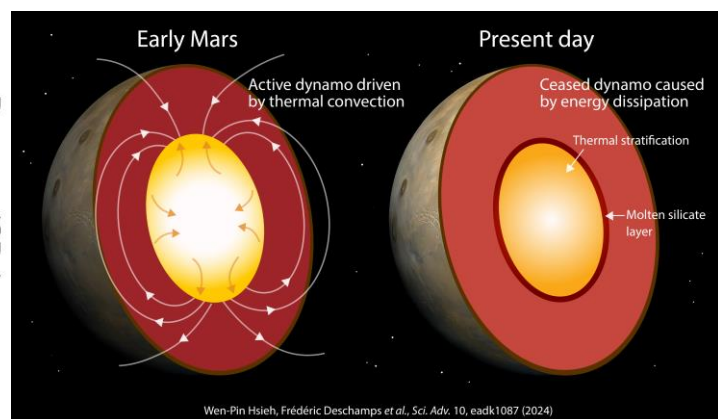
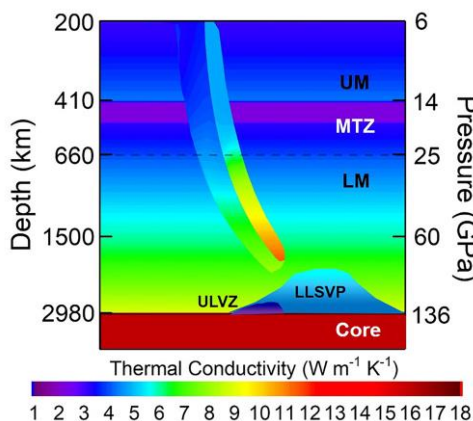
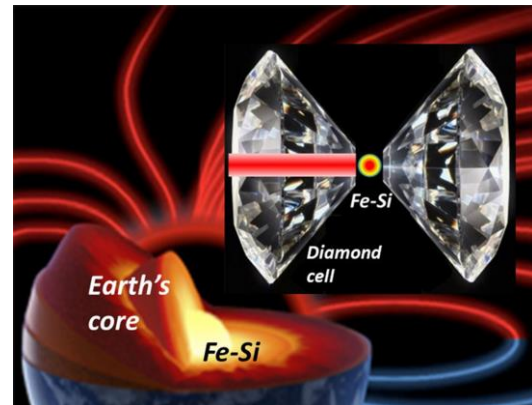
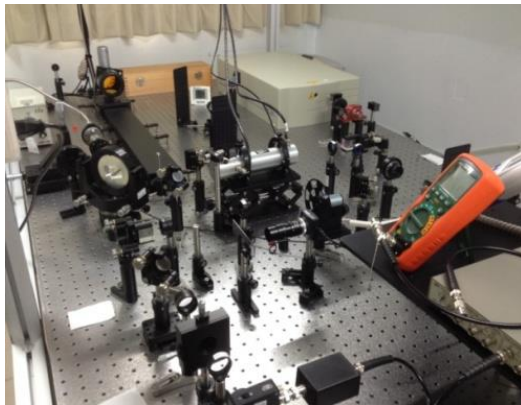


中央研究院 地球科學研究所

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極端條件實驗室 主要研究興趣為了解地球與行星內部組成物質於極端條件下(極高壓力-高於 150 GPa、極高/低溫度-few to thousands of Kelvin 以及極短時間-picosecond to nanosecond)之物理性質。我們利用超快光學結合高壓鑽石砧以及高低溫系統等技術以模擬地球與行星內部的極端環境，並研究地球、類地行星及冰衛星內部從上部地幔至地核之主要組成物質於相關高溫高壓條件下的熱傳導、電阻率、聲速、分子振動光譜及電子自旋等特性。此研究將大幅提高目前世界上所能量測相關物理量的壓力、溫度及時間範圍，提供全新的實驗數據。近期重點在了解地球與行星內部熱化學演化、磁場演化、地體動力學、早期岩漿海與現今地球內部構造之關聯性、板塊隱沒動力學與誘發隱沒帶中深層地震、地球深部水與碳循環等議題。我們從礦物物理的角度引領並幫助解釋動力學數值模擬與地震觀測上的相關問題。



Positions opening 歡迎加入我們的研究團隊！

實驗室：極端條件實驗室（謝文斌 博士）

需求職稱：博士後研究員、碩士級專任研究助理、博士班/碩士班研究生、大學部專題生等數名

需求說明：具地球科學/物理/化學/材料 相關背景

研究主題：結合超快光學、高壓鑽石砧、高低溫系統、數值模擬等技術探索地球及類地行星內部物質特性及演化動力學等

具備條件：好奇心、研究熱忱、熟悉雷射/光學、高壓技術、數值模擬與程式等尤佳

工作地點：中央研究院地球科學研究所 台北市南港區研究院路二段 128 號

工作待遇：依原國科會之標準或更高

起始時間：即刻

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The research interests of the **Extreme Conditions Laboratory (ECL)** at the Institute of Earth Sciences, Academia Sinica, focus on exploring physical properties of minerals under extreme conditions, e.g., extremely high pressure (higher than 150 GPa), high/low temperature (tens to thousands of Kelvin), and short time scale (picoseconds to nanoseconds). Our current researches include using ultrafast optics combined with extreme pressure and temperature techniques to simulate the environments in the Earth and planetary interiors, and to study thermal and electrical conductivity, sound velocity, Raman spectroscopy and spin transition of important constituents in Earth and planetary interiors. Recent topics include, but not limited to, thermochemical and geomagnetic evolution in Earth and terrestrial planets, mantle dynamics, correlation between the early magma ocean and present deep mantle structure, subduction dynamics and its impacts on intermediate-depth earthquakes, and Earth's deep water and carbon cycle, etc.

We are looking for highly motivated members. Welcome to join us!

Position title: Postdoc researchers, full-time research assistants with MS degree, PhD/master students, and undergraduates. *Candidates who are familiar with laser/optics, high pressure technique, and numerical simulations/programming are highly preferred.*

Research project: Using ultrafast optics combined with variable pressure/temperature techniques and numerical simulations to study physical properties (thermal and electrical conductivity and elastic/vibrational properties) of minerals and related geodynamics in Earth and planetary interiors

Working place: Institute of Earth Sciences, Academia Sinica, Nankang, Taipei, Taiwan

Salary: In accordance with or higher than NSCT's standard

Starting date: Immediately



If you are interested in joining us, please contact Dr. Wen-Pin Hsieh

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