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研究領域：高壓相變、地球物理學、地球化學

Specialty: High pressure phase transformation, Geophysics, Geochemistry

〔 經 歷 〕

- 1974/03 - 1974/05 : Associate Professor, Research School of Earth Sciences, Australian Nat'l Univ.
- 1976/06 - 1993/01 : Professor, Research School of Earth Sciences, Australian Nat'l Univ.
- 1976/09 - 1977/08 : Research Fellow, Dept. Geology & Planet Sciences, California Inst. Technology
- 1980/09 - 1981/02 : Visiting Professor, Dept. Geology, Cornell Univ.
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〔 著 作 〕

(1) SCI Papers:

1. Liu, L. and A. El Gorse (2007) High-pressure phase transitions of the feldspars and further characterization of lingunite, *Int. Geol. Rev.* (in press).
2. Lin, C.-C., S.-F. Chen, L. Liu and C.-C. Li (2007) Anionic structure and elasticity of Na₂O-MgO-SiO₂ glasses, *J. Non-Cryst. Solids*, 353, 413-425.
3. Chen, P.F., L. Y. Chiao, P.H. Huang, Y.J. Yang and L. Liu (2006) Elasticity of dolomite and magnesite from a genetic algorithm for inverting Brillouin spectroscopy measurements. *Phys. Earth Planet. Inter.*, 155, 73-86.
4. Lin, C.-C. and L. Liu (2006) Compositional dependence of elasticity in aluminosilicate glasses. *Phys. Chem. Minerals* 33, 332-346.
5. Jayachandran, K. P. and L. Liu (2006) High pressure elasticity and phase transformation in brucite, Mg(OH)₂, *Phys. Chem. Minerals* 33, 484-489.
6. Jayachandran, K. P. and L. Liu, The nonlinear elasticity and related properties of anhydrous and hydrous γ -Mg₂SiO₄ – a theoretical study, *Phys. Chem. Minerals*, 78, 28-39, 2005.
7. Liu, L., C.-C. Chen, C.-C. Lin, and Y.-J. Yang, Elasticity of single-crystal aragonite by Brillouin spectroscopy, *Phys. Chem. Minerals*, 32, 97-102, 2005.
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14. Liu, L., C.-C. Lin, T. P. Mernagh and T. Inoue, Raman spectra of phase C (superhydrous phase B) at various pressures and temperatures, *Eur. J. Mineral.*, 14, 15-23, 2002.
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16. Chen, C.-C., L. Liu, C.-C. Lin and Y.-J. Yang, High-pressure phase transformation in CaSO₄, *J. Phys. Chem. Solids*, 62, 1293-1298, 2001.
17. Chen, C.-C., C.-C. Lin, L. Liu, S. V. Sinogeikin and J. D. Bass, Elasticity of single-crystal calcite and rhodochrosite by Brillouin spectroscopy, *Am. Mineral.*, 86, 1525-1529, 2001.
18. Liu, L., C.-C. Lin and Y.-J. Yang, Formation of diamond by decarbonation of MnCO₃, *Solid State Comm.*, 118, 195-198, 2001.
19. Huh, C. A. and L. Liu, Precision measurements of the half-lives of some electron capture decay nuclides: ⁷Be, ⁵⁴Mn, ⁸³Rb and ⁸⁴Rb, *J. Radioanalytical Nucl. Chem.*, 246, 229-231, 2000.
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61. Liu, L., T.P. Mernagh and A.L. Jaques, A Raman spectroscopy study on eclogitic garnet inclusions in diamonds from Argyle, *Contrib. Mineral. Petrol.*, 105, 156-161, 1990.
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63. Mernagh, T.P. and L. Liu, Pressure dependence of Raman spectra from the garnet end-members: pyrope, grossularite and almandite, *J. Raman Spectr.*, 21, 305-309, 1990.
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65. Liu, L., Water, low-velocity zone and the descending lithosphere, *Tectonophysics*, 164, 41-48, 1989.
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85. Shen, P., W.A. Bassett and L. Liu, Experimental determination of the effects of pressure and temperature on the stoichiometry and phase relations of w stite. *Geochim. Cosmochim. Acta*, 47, 773-778, 1983.
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89. Liu, L., Speculations on the composition and origin of the Earth, *Geochem. J.*, 16, 287-310, 1982.
90. Liu, L., Compression of ice VII to 500 kbar, *Earth Planet. Sci. Lett.* 61, 359-364, 1982.
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100. Liu, L., Calculations of high-pressure phase transitions in the system MgO-SiO₂ and implications for mantle discontinuities, *Phys. Earth Planet. Inter.* 19, 319-330, 1979.
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(2) non-SCI Papers:

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