

GUY L. HOVIS PUBLICATIONS

1971 - 2025

PEER-REVIEWED ARTICLES

Lafayette College student coauthors shown in bold

Hovis, G.L., Tribaudino, M. (in press, 2025) The thermal expansion of monticellite and olivine. *European Journal of Mineralogy*.

Hovis, G.L., Tribaudino, M., **Altomare, C.**, Bosi, F. (2023) Thermal expansion of minerals in the tourmaline supergroup. *American Mineralogist* 108, 1053-1063.

Bosi, F., Skogby, H., Hovis, G.L. (2023) Crystal chemistry of povondraite by single-crystal XRD, EMPA, Mössbauer spectroscopy and FTIR. *Mineralogical Magazine* 87, 178-185.

Tribaudino, M., Hovis, G.L., **Almer, C.**, **Leaman, A.** (2022) Thermal expansion of minerals in the amphibole supergroup. *American Mineralogist* 107, 1302-1312.

Hovis, G.L., Tribaudino, M., **Leaman, A.**, **Almer, C.**, **Altomare, C.**, **Morris, M.**, **Maksymiw, N.**, **Morris, D.**, **Jackson, K.**, **Scott, B.**, **Tomaino, G.**, Mantovani, L. (2021) Thermal expansion of minerals in the pyroxene system and examination of various thermal expansion models. *American Mineralogist* 106, 883-899.

Antao, S., Hovis, G.L. (2021) Structural variations across the nepheline (NaAlSi₃O₈) - kalsilite (KAlSi₃O₈) series. *American Mineralogist* 106, 801-811.

Hovis, G.L. (2017) A refined view of the thermodynamic mixing quantities for alkali feldspars and the quandary of excess configurational entropy. *American Journal of Science* 317, 597-640.

Hovis, G., Abraham, T., **Hudacek, W.**, **Wildermuth, S.**, **Scott, B.**, **Altomare, C.**, **Medford, A.**, **Conlon, M.**, **Morris, M.**, **Leaman, A.**, **Almer, C.**, **Tomaino, G.**, Harlov, D. (2015) Thermal expansion of F-Cl apatite crystalline solutions. *American Mineralogist* 100, 1040-1046.

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Hovis, G.L., McCubbin, F., Nekvasil, H., Ustunisik, G., Woerner, W., Lindsley, D.H. (2014) A novel technique for fluorapatite synthesis and the thermodynamic mixing behavior of F-OH apatite crystalline solutions. *American Mineralogist* 99, 890-897.

Hovis, G.L., **Medford, A.**, **Conlon, M.**, **Tether, A.**, **Romanoski, A.** (2010) Principles of thermal expansion in the feldspar system. *American Mineralogist* 95, 1060-1068.

- Hovis, G.L., Harlov, D. (2010) Solution calorimetric investigation of fluor-chlorapatite crystalline solutions. *American Mineralogist* 95, 946-952.
- Hovis, G.L., **Mott, A. V.**, Roux, J. (2009) Thermodynamic, phase equilibrium, and crystal chemical behavior in the nepheline - kalsilite system. *American Journal of Science* 309, 397-419.
- Hovis, G.L., **Morabito, J.R. Spooner, R., Mott, A. Person, E.L.**, Henderson, C.M.B., Roux, J., Harlov, D. (2008) A simple predictive model for the thermal expansion of AlSi₃ feldspars. *American Mineralogist* 93, 1568-1573.
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- Hovis, G.L., **Person, E., Spooner, A.**, Roux, J. (2006) Thermal expansion of highly silicic nepheline - kalsilite crystalline solutions. *Mineralogical Magazine* 70, 383-396.
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Hovis, G.L. (1974) A solution calorimetric and X-ray investigation of Al-Si distribution in monoclinic potassium feldspars. In *The Feldspars*, W. S. MacKenzie and J. Zussman, eds., University of Manchester Press, Manchester, England, 114-144.

DOCTORAL DISSERTATION

Hovis, G.L. (1971) *Thermodynamic properties of monoclinic potassium feldspars*. Harvard University, Cambridge, Massachusetts.

ABSTRACTS AND CONFERENCE PRESENTATIONS

Lafayette College student coauthors shown in bold

Hovis, G.L. (2016) Systematic behavior of K-Na mixing enthalpies with Al-Si order in alkali feldspars and implications for phase equilibria. *2nd European Mineralogical Conference*, Rimini, Italy.

Hovis, G.L. (2015) Well-constrained enthalpies of K-Na mixing in Al-Si ordered and disordered alkali feldspar series from new HF solution calorimetric measurements on forty-one samples. *Abstracts of the Geological Society of America Annual Meeting*, Abstract No. 257589.

Hovis, G., Abraham, T. **Hudacek, W., Wildermuth, S., Scott, B., Altomare, C., Medford, A., Conlon, M., Morris, M., Leaman, A., Almer, C., Tomaino, G.**, Harlov, D. (2015) Thermal expansion of fluorapatite-chlorapatite solid solutions. *Geophysical Research Abstracts* 17, EGU2015-1835-3. [2015 European Geosciences Union General Assembly]

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Hovis, G.L., Rodrigues, E., Roux, J. (2000) Thermodynamic behavior of analcime-leucite analogue systems. *Journal of Conference Abstracts (Cambridge Publications), Volume 5, Number 1, 50. [Experimental Mineralogy, Petrology, and Geochemistry Meeting (EMPG) VIII]*

Rodrigues, E., Roux, J., Hovis, G.L., (2000) Ternary analcime-pollucite solid solutions: Phase equilibrium data (1-5 kbar, 600 °C). *Journal of Conference Abstracts (Cambridge Publications), Volume 5, Number 1, 87. [Experimental Mineralogy, Petrology, and Geochemistry Meeting (EMPG VIII)]*

Hovis, G.L., Rodrigues, E., Roux, J. (2000) Analcime - leucite analogue systems: Examples of nonideal thermodynamic behavior without thermal consequences. *Geological Society of America Annual Meeting Abstracts with Programs 32, A53*.

Hovis, G.L., Richet, P., Whittington, A. (2000) HF solution calorimetry of hydrous aluminosilicate glasses. *Transactions of the American Geophysical Union 81, F1327-F1328*.

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- Roux, J., Hovis, G.L. (1995) Mixing and formation thermodynamic properties of the muscovite - paragonite solid solutions. *Transactions of the American Geophysical Union, EOS 76, F677*.
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