The Data in this folder are from this publication:

2015 Hofmeister, A.M. and Ke, R. Thermal diffusivity of feldspathoids and zeolites as a function of temperature. *Physics and Chemistry of Minerals* **42***, 693-706.*

**See Crystals Database File in metadata folder for complete list of Crystals samples/compositions and references.**

**Data collected at Washington University, St. Louis, MO**

**Supported by NSF: EAR-1321857**

Files

Table 1 – Sample Descriptions

Table 2 – Chemical Compositions

Figures 1, 2, 3, 4, 5, 6 – Infrared Spectra – PRN files

Column 1: Wave number (cm-1)

Column 2: Absorption coefficient (mm-1)

|  |  |  |  |
| --- | --- | --- | --- |
| **IR Spectra File Name** | **Sample Thickness (mm)** | **Description** | **Sample ID** |
| ANAL820 | 0.3 | apt, near, 500 scans, res = 2 | Analcime, first heating |
| ANALC821 | 1.15 | apt, near, 800 scans, res = 2 | Analcime, second heating |
| LEUC1108 | 0.72 | apt, near, 300 scans, res = 2 | Rocomonfina Clear Leucite |
| LEUC1109 | 0.58 | apt, near, 300 scans, res = 2 | Rocomonfina Cloudy Leucite |
| MSLEUC01 | 1.047 | apt, 1000 scans, res = 2 | Monte Soma Leucite |
| NEPA827 | 1 | apt, near, 600 scans, res = 2 | Nepheline, face (001) |
| NEPC827 | 0.92 | apt, near, 600 scans, res = 2 | Nepheline, perdendicular to (001), heated |
| NEPH912A | 1 | apt, near, 500 scans, res = 2 | Nepheline, face (001), heated |
| NEPH912C | 0.92 | apt, near, 500 scans, res = 2 | Nepheline, perpendicular to (001) |
| PETA912A | 1 - 1.55 | apt, near, 500 scans, res = 2 | Petalite, (201) cleavage |
| PETA912B | 1 - 1.55 | apt, near, 500 scans, res = 2 | Petalite, perp. to cleavage |
| PETA912C | 1 - 1.55 | apt, near, 500 scans, res = 2 | Petalite (001) cleavage |
| PETH919B | 1 - 1.55 | apt, near, 500 scans, res = 2 | Petalite, perp. heated |
| POLL819 | 0.7 | apt, near, 500 scans, res = 2 | Pollucite, heated 2x |
| POLL820 | 0.68 | apt, near, 500 scans, res = 2 | Pollucite, heated 3x |
| POLLU428 | 0.75 | apt, mid, 1000 scans, res = 2 | Pollucite, original |
| SODA819 | 0.3 | apt, near, 500 scans, res = 2 | Analcime, original |
| SODA820 | 1.17 | apt, near, 500 scans, res = 2 | Sodalite, heated |
| SODA821 | 0.8 | apt, near, 1000 scans, res = 2 | Sodalite |
| VLEU22A | 5.357 | 500 scans, res = 2 | Villa Senna Leucite |

Table 3 – Thermal Diffusivity

UV Spectra – Not published – Excel Files

Column 1: Wavelength (WL/nm)

Column 2: Absorption Coefficient

|  |  |  |
| --- | --- | --- |
| **UV Spectra File Name** | **Sample Thickness (mm)** | **Description** |
| VLEU22A | 0.769 | Villa Senna Leucite |
| LEU1108A | 0.679 | Leucite - R |
| POLL817A | 4.479 | Pollucite |

Raw Probe Data

|  |  |
| --- | --- |
| **Sample Type** | **Filename** |
| sodalite, analcime, pollucite | 4-7-14 samples |
| leucite - R | 4-8-11 sample |
| Leucite - V | 10-27-2010 sample |
| Nepheline | Hofmeister 9-15-2014 Nepheline |
| Petalite | Hofmeister 8-21-09 Samples |