The Data in this folder are from this publication:

2014 Hofmeister, A.M. Thermal diffusivity and thermal conductivity of single-crystal MgO and Al2O3 as a function of temperature. *Physics and Chemistry of Minerals* **41***, 361-371.*

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

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

**Supported by NSF: EAR-0757841**

Files

Table 1 – Thermal Diffusivity data (T in K, D in mm2s-1)

Table 2 – Thermal Diffusivity fits and initial values

X-Ray Diffraction – to be received from Paul at a later date

IR Spectra – PRN Files

Column 1: Wave number

Column 2: Absorption

|  |  |  |  |
| --- | --- | --- | --- |
| **IR Spectra File Name** | **Sample Thickness (mm)** | **Description** | **Sample ID** |
| ZN0624 | ~ 1mm | mid microscope, right side, 5mm aperture, ZnO perp to C, 2000 scans, res = 2 | Mg-rich corundum a-c section |

Raw Probe Data

|  |  |  |
| --- | --- | --- |
| **Sample Type** | **Filename** | **Labeled as** |
| Brucite | Hofmeister 2-18-2013 samples | Mt5A |
| Red Corundum | Hofmeister 2-18-2013 samples | Mt3D |
| Pink Corundum | Hofmeister 2-18-2013 samples | Mt3A |
| MgO crystals | N/A, from MTI | N/A |
| Al2O3 | N/A, from MTI | N/A |
| Mg-corundum [0001] | Hofmeister 2-18-2013 samples | Mt3C |
| Ilmenite | see 1993 Hofmeister, A. M.: IR reflectance spectra of natural ilmenite: comparison with isostructural compounds and calculation of thermodynamic properties. European Journal of Mineralogy 5, 281-295. | N/A |