|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Name in ThermoBar | Temperature-dependent? | Pressure-dependent? | H2O-Dependent? |
| **Clinopyroxene-Liquid Barometers. *Function “calculate\_cpx\_liq\_press”*** | | | | |
| Putirka (1996) | P\_Put1996\_eqP1 | **Yes** |  | No |
|  | P\_Put1996\_eqP2 | **Yes** | No |
| Putirka (2003) | P\_Put2003 | **Yes** | No |
| Putirka (2008) | P\_Put2008\_eq30 | **Yes** | **Yes** |
| P\_Put2008\_eq31 | **Yes** | **Yes** |
| P\_Put2008\_eq32c | **Yes** | **Yes** |
| Masotta et al. (2013) *recalibration of Putirka eqs. for alkali systems* | P\_Mas2013\_eqPalk1 | **Yes** | No |
| P\_Mas2013\_eqPalk2 | **Yes** | No |
| P\_Mas2013\_eqalk32c | **Yes** | **Yes** |
| Masotta et al. (2013) | P\_Mas2013\_Palk2012 | No | **Yes** |
| Neave & Putirka (2017) | P\_Neave2017 | **Yes** |  | No |
| **Clinopyroxene-Liquid Thermometers. *Function “calculate\_cpx\_liq\_temp”*** | | | | |
| Putirka (1996) | T\_Put1996\_eqT1 |  | No | No |
|  | T\_Put1996\_eqT2 |  | **Yes** | No |
| Putirka (1999) | T\_Put1999 |  | **Yes** | No |
| Putirka (2003) | T\_Put2003 |  | **Yes** | No |
| Putirka (2008) | T\_Put2008\_eq33 |  | **Yes** | **Yes** |
| Masotta et al. 2013  *Recalibration of Putirka eqs. for alkali systems* | T\_Mas2013\_eqTalk1 |  | No | No |
|  | T\_Mas2013\_eqTalk2 |  | **Yes** | No |
|  | T\_Mas2013\_eqalk33 |  | **Yes** | **Yes** |
| Masotta et al. 2013 | T\_Mas2013\_Talk2012 |  | No | **Yes** |
| Brugman and Till, 2019 | T\_Brug2019 |  | No | No |
| **Clinopyroxene-only Barometers. *Function “calculate\_cpx\_only\_press”*** | | | | |
| Putirka (2008) | P\_Put2008\_eq32a | **Yes** |  | No |
|  | P\_Put2008\_eq32b | **Yes** |  | **Yes** |
| **Clinopyroxene-only Thermometers. *Function “calculate\_cpx\_only\_temp”*** | | | | |
| Putirka (2008) | T\_Put2008\_eq32d |  | **Yes** | No |
|  | T\_Put2008\_eq32d\_subsol |  | **Yes** | No |
| **Orthopyroxene-Liquid Barometers. *Function “calculate\_opx\_liq\_press”*** | | | | |
| Putirka (2008) | P\_Put2008\_eq29a | **Yes** |  | **Yes** |
| P\_Put2008\_eq29b | **Yes** |  | **Yes** |
| Putirka Supplement New “Global” calibrations | P\_Put\_Global\_Opx | No |  | No |
| P\_Put\_Felsic\_Opx | No |  | No |
| **Orthopyroxene-Liquid Thermometers. *Function “calculate\_opx\_liq\_temp”*** | | | | |
| Putirka (2008) | T\_Put2008\_eq28a |  | Yes | No |
|  | T\_Put2008\_eq28b\_opx\_sat |  | Yes | No |
| **Orthopyroxene-Clinopyroxene Thermometers. *Function “calculate\_opx\_cpx\_press”*** | | | | |
| Putirka (2008) | P\_Put2008\_eq38 | Yes |  | No |
|  | P\_Put2008\_eq39 | Yes |  | No |
| **Orthopyroxene-Clinopyroxene Thermometers. *Function “calculate\_opx\_cpx\_press”*** | | | | |
| Putirka (2008) | T\_Put2008\_eq36 |  | **Yes** | No |
|  | T\_Put2008\_eq37 |  | **Yes** | No |
| Brey and Kohler (1990) | T\_Brey1990 |  | **Yes** | No |
| Wood and Banno (1973) | T\_Wood1973 |  | No | No |
| Wells, 1977 | T\_Wells1977 |  | No | No |
| **Other Functions** | | | | |
| **Iterative solving of pressure and temperature:**  ***calculate\_cpx\_liq\_press\_temp: :*** Iteratively solves P and T for clinopyroxene-liquid pairs using an equation for pressure, and an equation for temperature  ***calculate\_cpx\_only\_press\_temp:*** Iteratively solves P and T for clinopyroxene-only equilibra using an equation for pressure, and an equation for temperature  ***calculate\_cpx\_opx\_press\_temp:*** Iteratively solves P and T for clinopyroxene-orthopyroxene pairs using an equation for pressure, and an equation for temperature  **Matching all possible pairs**  **calculate\_cpx\_liq\_press\_temp\_matching**: Calculates P and T for all possible cpx-liquid pairs (with user-selected options for equilibrium criteria)  **calculate\_cpx\_opx\_press\_temp\_matching**: Calculates P and T for all possible cpx-opx pairs (with user-selected options for equilibrium criteria) | | | | |