**Amphibole Thermobarometers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Name in Thermobar | T-dependent? | P-dependent? | H2O-dependent? |
| **Amphibole-Liquid Barometry. *Function “calculate\_amp\_liq\_press”*** | | | | |
| Putirka (2016) | P\_Put2016\_eq7a | **✗** |  | **🗸** |
| P\_Put2016\_eq7b | **✗** | **🗸\*** |
| P\_Put2016\_eq7c | **✗** | **🗸\*** |
| **Amphibole-Liquid Thermometry. *Function “calculate\_amp\_liq\_temp”*** | | | | |
| Putirka (2016) | T\_Put2016\_eq4b |  | **✗** | **🗸** |
| T\_Put2016\_eq4a\_amp\_sat | **✗** | **🗸\*** |
| T\_Put2016\_eq9 | **✗** | **🗸\*** |
| **Amphibole-only Barometry. *Function “calculate\_amp\_only\_press”*** | | | | |
| Ridolfi and Renzulli (2012) | P\_Ridolfi2012\_1a | **✗** |  | **✗** |
| P\_Ridolfi2012\_1b | **✗** | **✗** |
| P\_Ridolfi2012\_1c | **✗** | **✗** |
| P\_Ridolfi2012\_1d | **✗** | **✗** |
| P\_Ridolfi2012\_1e | **✗** | **✗** |
| Ridolfi et al. (2010) | P\_Ridolfi2010 | **✗** | **✗** |
| Hammarstrom & Zen (1986) | P\_Hammerstrom1986\_eq1 | **✗** | **✗** |
| P\_Hammerstrom1986\_eq2 | **✗** | **✗** |
| P\_Hammerstrom1986\_eq3 | **✗** | **✗** |
| Hollister et al. (1987) | P\_Hollister1987 | **✗** | **✗** |
| Johnson & Rutherford (1989) | P\_Johnson1989 | **✗** | **✗** |
| Blundy et al. (1990) | P\_Blundy1990 | **✗** | **✗** |
| Schmidt (1992) | P\_Schmidt1992 | **✗** | **✗** |
| Anderson & Smith, 1995 | P\_Anderson1995 | **🗸** | **✗** |
| Krawczynski et al.(2012) | P\_Kraw2012 | **✗** | **✗** |
| **Amphibole-only Thermometry. *Function “calculate\_amp\_only\_temp”*** | | | | |
| Putirka (2016) | T\_Put2016\_eq5 |  | **✗** | **✗** |
| T\_Put2016\_eq6 | **✗** | **✗** |
| T\_Put2016\_SiHbl | **✗** | **✗** |
| T\_Put2016\_eq8 | **🗸** | **✗** |
| Ridolfi and Renzuli, 2012 | T\_Ridolfi2012 | **🗸** | **✗** |
| **🗸\*** H2O-dependence because of parameterization in terms of hydrous fractions, not a specific H2O-term  **Other Functions** | | | | |
| ***calculate\_amp\_liq\_press\_temp*:** Iteratively solves P and T for liquid-amphibole pairs  **calculate\_amp\_only\_press\_temp:** Iteratively solves P and T using just amphibole compositions. | | | | |