Supplemental Material Description & References

for Culi, L., Sole, J., and Ortega-Gutierrez, F., 2020, Metamorphic evolution of Proterozoic ultramafic rocks from the Oaxacan Complex (Oaxaca State, southern Mexico): Tectonic implications, *in* Martens, U., and Molina Garza, R.S., eds., Southern and Central Mexico: Basement Framework, Tectonic Evolution, and Provenance of Mesozoic–Cenozoic Basins: Geological Society of America Special Paper 546, [https://doi.org/10.1130/2020.2546\(04\)](https://doi.org/10.1130/2020.2546(04)).

Table S1: Composition of orthopyroxenes from LCOx35 and LCOx96 samples.

Table S1.a: Composition of orthopyroxene 1 from LCOx35 sample.

Table S1.b: Composition of orthopyroxene 2 from LCOx35 sample.

Table S1.c: Composition of orthopyroxene 3 from LCOx35 sample.

Table S1.d: Composition of orthopyroxene 2 from LCOx96 sample.

Table S2.e: Composition of orthopyroxene 3 from LCOx96 sample.

Table S2.f: Composition of orthopyroxene 4 from LCOx96 sample.

Table S2.g: Composition of orthopyroxene 5 from LCOx96 sample.

Table S2: Composition of amphibole rims from orthopyroxene of LCOx35 and LCOx96.

Table S2.a: Composition of amphibole rims from orthopyroxene of LCOx35.

Table S2.a: Composition of amphibole rims from orthopyroxene of LCOx396.

Table S3: Composition of clinopyroxenes from LCOx96, LCOx117 and LCOx123a samples.

Table S3.a: Composition of clinopyroxene 2 from LCOx96 sample.

Table S3.b: Composition of clinopyroxene 3 from LCOx96 sample.

Table S3.c: Composition of clinopyroxene 4 from LCOx96 sample.

Table S3.d: Composition of clinopyroxene 1 from LCOx117 sample.

Table S3.e: Composition of clinopyroxene 1 from LCOx123a sample.

Table S3.f: Composition of clinopyroxene 2 from LCOx123a sample.

Table S3.g: Composition of clinopyroxene 3 from LCOx123a sample.

Table S4: Composition of garnets from LCOx35 sample.

Table S4.a: Composition of garnet 1 from LCOx35 sample.

Table S4.b: Composition of garnet 2 from LCOx35 sample.

Table S4.c: Composition of garnet 3 from LCOx35 sample.

Table S5: Composition of amphiboles from LCOx35 and LCOx96 samples.

Table S5.a: Composition of amphibole 1 from LCOx35 sample.

Table S5.b: Composition of amphibole 2 from LCOx35 sample.

Table S5.c: Composition of amphibole 3 from LCOx35 sample.

Table S5.d: Composition of amphibole 2 from LCOx96 sample.

Table S5.e: Composition of amphibole 3 from LCOx96 sample.

Table S5.f: Composition of amphibole 4 from LCOx96 sample.

Table S5.g: Composition of amphibole 5 from LCOx96 sample.

Table S6: Composition of ilmenite from LCOx35 sample.

Table S6.a: Composition of ilmenite 1 from LCOx35 sample.

Table S6.b: Composition of ilmenite 2 from LCOx35 sample.

Table S6.c: Composition of ilmenite 3 from LCOx35 sample.

Table S7: Composition of scapolite from LCOx117 sample.

Table S8: Composition of spinel group minerals from LCOx35, LCOx96 and LCOx123a samples.

Table S8.a: Composition of magnetite 1 from LCOx35 sample.

Table S8.b: Composition of magnetite 1 from LCOx96 sample.

Table S8.c: Composition of hercinite 1 from LCOx123a sample.

Table S8.d: Composition of hercinite 2 from LCOx123a sample.

Table S9: REE of orthopyroxenes from LCOx35, LCOx96 and LCOx114 samples.

Table S9.a: REE of orthopyroxene 1 from LCOx35 sample.

Table S9.b: REE of orthopyroxene 1 from LCOx96 sample.

Table S9.c: REE of orthopyroxene 1 from LCOx114 sample.

Table S10: REE of clinopyroxenes from LCOx96, LCOx114, LCOx117 and LCOx123a samples.

Table S10.a: REE of clinopyroxene 1 from LCOx96 sample.

Table S10.b: REE of clinopyroxene 1 from LCOx114 sample.

Table S10.c: REE of clinopyroxene 1 from LCOx117 sample.

Table S10.d: REE of clinopyroxene 1 from LCOx123a sample.

Table S11: REE of amphiboles from LCOx35, LCOx96 and LCOx114 samples.

Table S11.a: REE of amphiboles 1 from LCOx35 sample.

Table S11.b: REE of amphiboles 1 from LCOx96 sample.

Table S11.c: REE of amphiboles 1 from LCOx114 sample.

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