

# Heat Flow Indicates Active Rifting and Volcanically Thinned Lid

**Venus' lithosphere and heat flow are variable, with some major rifts and coronae showing elevated values similar to Earth's actively extending rifts ( $\sim 75\text{-}250\text{ mW/m}^2$ ).**

- Venus lacks Earth-like plate tectonics. Many global evolution models assume a stagnant lid, implying strong, thick lithosphere and low heat flow.
- We estimate 65 new lithospheric thickness & heat flow values, which generally agree with a low res. global map of lithospheric thickness, leading to an average heat flow that is  $\geq$  Earth's.
- Average heat flow is greater than most 'stagnant lid convection' models. Variability supports an active planet with a 'squishy lid' heated by abundant volcanism.

