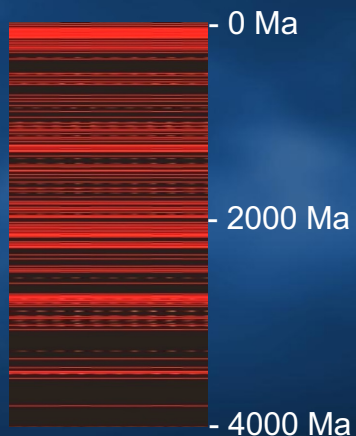


Massive Volcanism Leads to Heat-death of Earth-like Worlds

A statistical study of the largest volcanic events in Earth's history demonstrates that similar events may have caused the heat-death of Venus and could lead to the heat-death of Earth in the future!



Deccan Traps LIP from Massive volcanism in Earth's past



Massive volcanic events "Bar Code" in Earth history (back to 4000Ma). LIPs occurring every ~30 M yrs

- How did Venus go from a temperate climate to a runaway greenhouse?
- We examined the timing of Large Igneous Provinces (LIPs) in Earth's history and estimated the likelihood of overlapping LIPs. **Timing was found to be random.**
- LIPs that overlap by less than 1 million years are likely. This timescale is less than that of an individual LIP's environmental effect.
- Probability of the largest LIP in Earth's history overlapping with a similarly sized event **is ~30%.**
- Our results support the conjecture that the environmental impact of LIPs may have been responsible for the heat-death of Venus & other exoplanetary worlds.

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