

热点：不直接与板块运动相联系的表面火山活动，大量的位于板块内部，也有位于洋中脊的，如冰岛，但它们与正常的洋中脊火山作用不同，这种火山活动或导致更薄的洋壳以及冰岛的抬升。

hotspots tracks: In many cases hotspots lie at the end of well-defined lines of volcanic edifices or volcanic ridges
热点之间也有相对运动，每年几个mm, These results are consistent with plumes that ascend through a mantle, in which horizontal velocities are about an order of magnitude smaller than the plate velocities。

Hotspot swells: 热点膨胀，

热点在元素上与洋中脊有差异。However, the concentrations of incompatible elements and isotopic ratios differ from those of normal midocean ridge basalts. Whereas the mid-ocean ridge basalts are nearly uniformly depleted in incompatible elements, the concentrations of these elements in hotspot basalts have considerable variation. Some volcanoes produce basalts that are depleted, some produce basalts that have near chondritic ratios, and some volcanoes produce basalts that are enriched in the incompatible elements.