As a well-defined hotspot track the Hawaiian Ridge-Emperor Seamount Chain plays an important role in our understanding of mantle plumes. Geochemical studies on Hawaiian shield-stage lavas indicate considerable heterogeneity in radiogenic isotopic ratios, implying a heterogeneous Hawaiian plume. Specifically, among Hawaiian shield-stage lavas, lavas from the surface of Koolau (Makapuu-stage) have the highest $^{143}$Nd/$^{144}$Nd, $^{176}$Hf/$^{177}$Hf, $^{206}$Pb/$^{204}$Pb, Th/La and total iron content. Lavas from Loihi are characterized by the highest $^{3}$He/$^{4}$He. Lavas from Mauna Kea are characterized by the lowest $^{87}$Sr/$^{86}$Sr and highest $^{143}$Nd/$^{144}$Nd, $\varepsilon_{Nd}$ and Pb isotopic ratios. Other Hawaiian shield-stage lavas can be explained by variable mixing proportions of these three components (Koolau, Mauna Kea and Loihi). Despite substantial isotopic variations in Hawaiian shield-stage lavas, they have similar trace element ratios such as Hf/Pb (see inset in figure). Consequently, we infer that mixing lines among different source components for Hawaiian shield lavas are near-linear. This inference contrasts with the hyperbolic trend of $^{206}$Pb/$^{204}$Pb-$\varepsilon_{Nd}$, which requires a factor of 15 difference in Hf/Pb for two-component mixing (see figure). A possible explanation could be that an additional source component, similar to that manifested in Hawaiian rejuvenated-stage lavas, is also sampled by shield-stage lavas.