In this research, GIS technology have been employed to model geochemical anomalies based on trace elements distribution pattern in monomineral. Monomineral samples from this database have been identified using a geochemical spectra and Bayes of the approach and combination their mathematical statistics methods, so-called SBC method. We have used SBC method for quantitatively recognition mineralogical and geochemical anomalies and predict or highlight known areas of gold hydrothermal mineralization.