A unipartite network of 115 common primary igneous minerals (colored circles), with links between pairs of coexisting minerals. In this figure, links are drawn between two minerals if at least 49 % of rocks, as tabulated in Supplementary Table 3, incorporate the less common mineral also incorporate the more common mineral. Node and lettering sizes indicate the relative abundances of minerals, while colors indicate four large communities of igneous minerals that were determined using Louvain community detection (see text). Each of these four communities corresponds to the mineralogy of a major rock group. *Community 1*: Orange nodes represent 26 minerals from granitic rocks with dominant quartz and/or alkali feldspar. *Community 2*: 34 green nodes represent minerals from primarily mafic and ultramafic rocks with dominant calcic plagioclase and/or mafic minerals. *Community 3*: Blue nodes represent 24 minerals in alkaline rocks with dominant felspathoids. *Community 4*: 29 red nodes correspond to minerals in carbonatites with major Ca-Mg carbonate minerals. *Community 5*: Two purple nodes represent alkali carbonatites, as exemplified by the Oldoinyo Lengai carbonatite volcano in Tanzania.