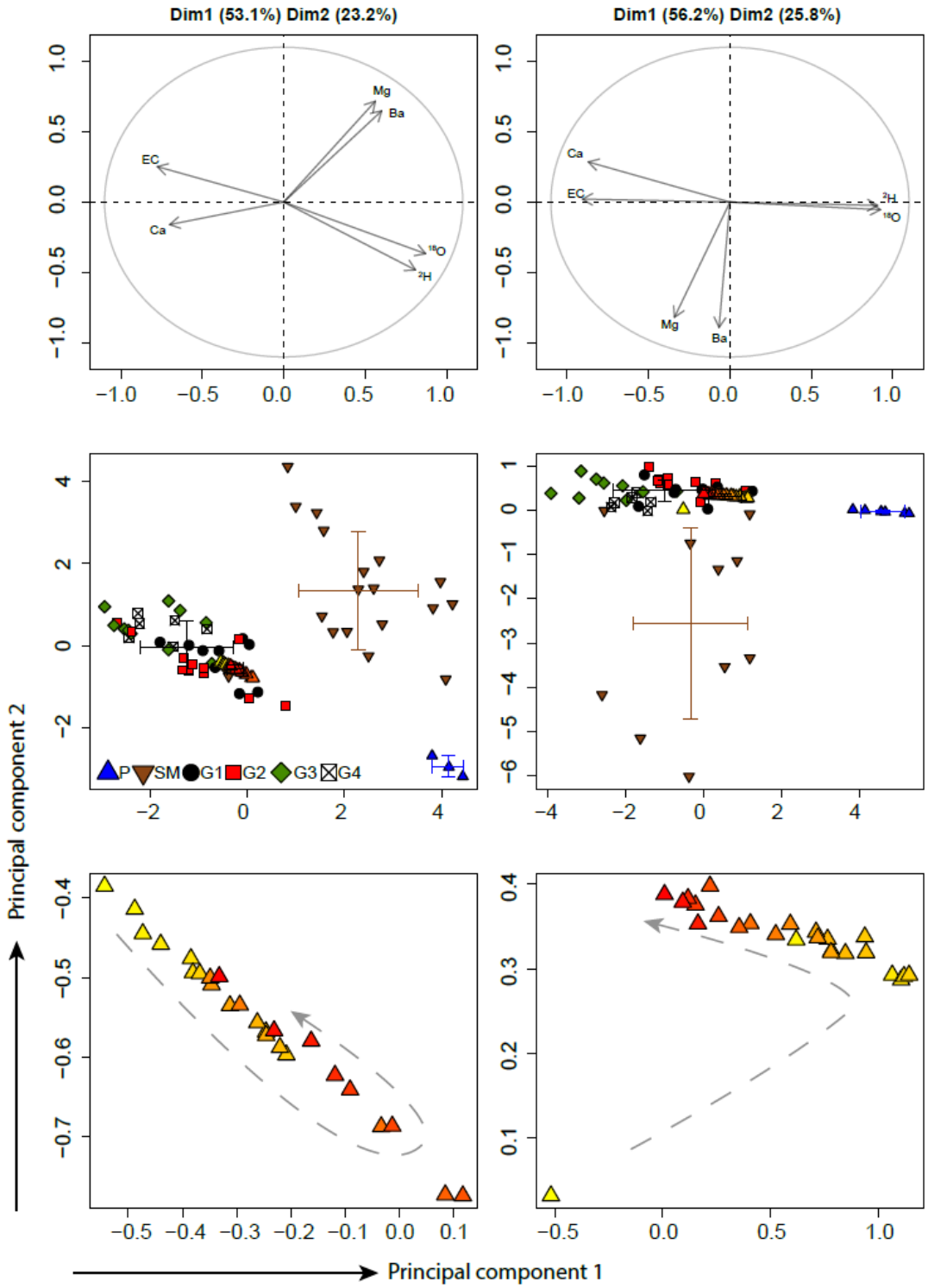

Figure S2: PCA results and mixing diagrams for event I (left) and event III (right). Event I is representative of a small event, whereas event III is representative of an intermediately sized event. In the biplots (first row), the length of the arrow represents the explanatory power. The mixing diagrams based on the first two principle components (middle row) show the individual rainfall (blue triangles), soil water (brown reversed triangles), and groundwater samples (black circles, red squares, green diamonds and black crosses, representing groundwater types 1-4 based on Kiewiet et al., 2019). The streamflow samples are shown with yellow (start of the event) to red (end of the event) triangles, and the average and standard deviation for each component is indicated with error bars. The third row shows a zoom in of the streamflow samples and highlights the evolution of the streamwater composition during the event (yellow = start, red = end), and the general direction of change is Indicated with a grey arrow and dashed lines.

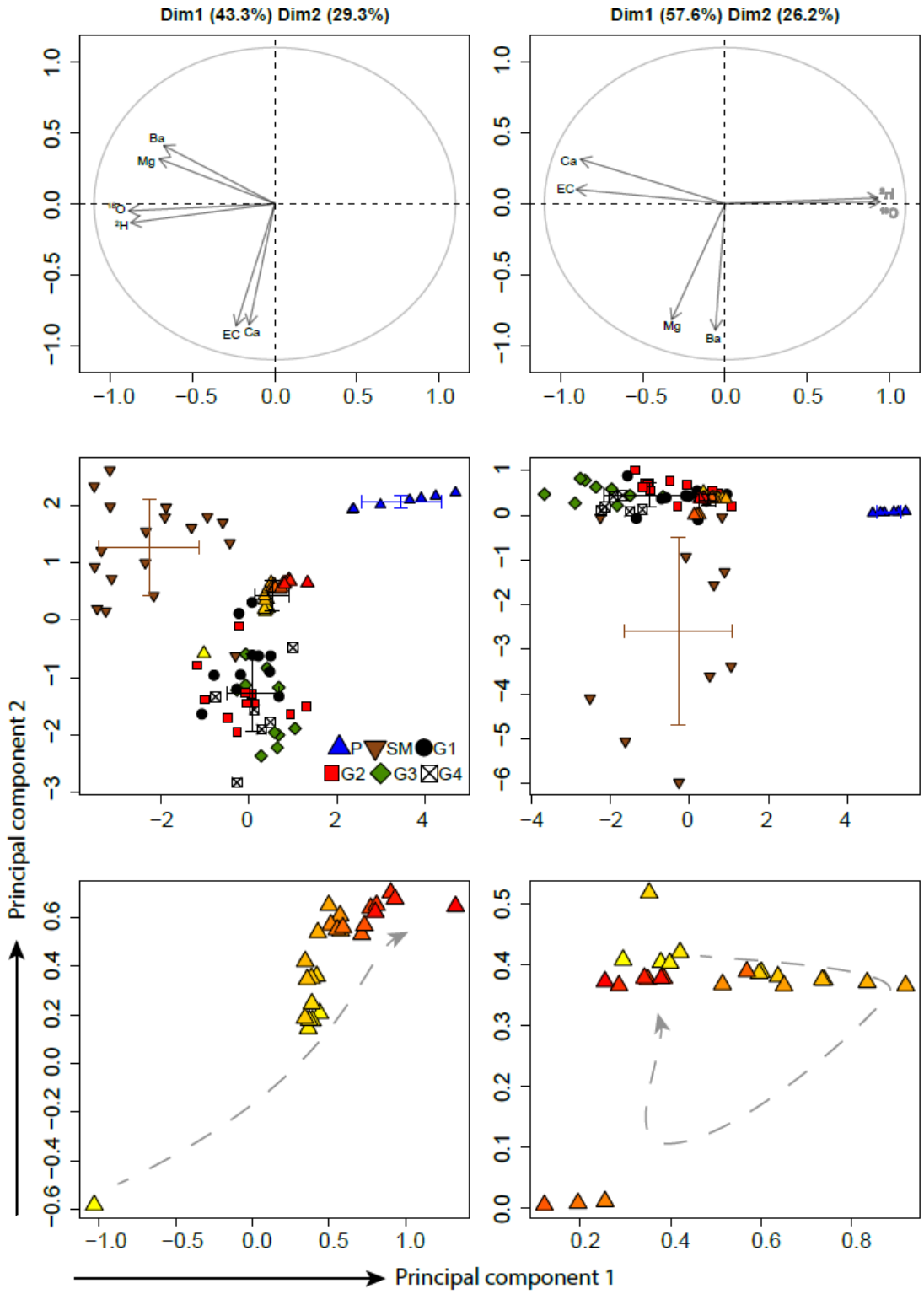

Figure S3: PCA results and mixing diagrams for event II (left) and event IV (right). In the biplots (first row), the length of the arrow represents the explanatory power. The mixing diagrams based on the first two principle components (middle row) show the individual rainfall (blue triangles), soil water (brown reversed triangles), and groundwater samples (black circles, red squares, green diamonds and black crosses, representing groundwater types 1-4 based on Kiewiet et al., 2019). The streamflow samples are shown with yellow (start of the event) to red (end of the event) triangles, and the average and standard deviation for each component is indicated with error bars. The third row shows a zoom in of the streamflow samples and highlights the evolution of the streamwater composition during the event (yellow = start, red = end), and the general direction of change is Indicated with a grey arrow and dashed lines.