Supplementary Information A

All examples of the tie points used for the volcanic synchronization between Dome Fuji and EPICA Dome C Antarctic deep ice cores

For the volcanic synchronization of Dome Fuji (DF) and EPICA Dome C (EDC) Antarctic deep ice cores, we proposed many tie points. Here, we provide 79 sets of figures to show all examples of the tie points. With these figures, readers can check if they can agree with the extracted tie points based on pattern matching. At each page, data of the ice cores (ECM, DEP, ACECM and sulfate) are given. On the graphs, peak features that were judged as common events by the operator are shown as red symbol markers. In all, we picked up more than 1700 sets of peaks. However, from these sets, only limited (~1400) sets of points were common between Dome Fuji core and EDC core. Remaining ~300 sets are closed tie points within either Dome Fuji or EDC, or, some of them had links only to Vostok ice core. Vostok ice core data are not shown here for simplicity. We gave ID number for each set of common events. These ID numbers are tentative and used only for a purpose of our synchronization work. The depth span of a set of figure is 50 m or 25 m on the Dome Fuji core. Depth scale of EDC core is also given. Note that in 4 sets of figures we used unpublished DEP data of the DF2 core for confirmation.
Suggested depths of DF-EDC tie points

Depth (m)
Suggested depths of DF-EDC tie points

Depth (m)
Suggested depths of DF-EDC tie points
Suggested depths of DF-EDC tie points

Depth (m)
DF core y values (arbitrary unit)

DF1 ECM

DF1 ACECM

DF2 ECM

DF2 ACECM

Suggested depths of DF-EDC tie points

EDC ECM

EDC DEP

EDC Sulfate

Depth (m)
Suggested depths of DF-EDC tie points

EDC ECM

EDC DEP

EDC Sulfate

Depth (m)
Suggested depths of DF-EDC tie points

Depth (m)
Suggested depths of DF-EDC tie points

Depth (m)
Suggested depths of DF-EDC tie points
Suggested depths of DF-EDC tie points
DF core y values (arbitrary unit)

DF1 ECM

DF1 ACECM

DF2 ECM

DF2 ACECM

Suggested depths of DF-EDC tie points

EDC ECM

EDC DEP

EDC Sulfate

Depth (m)
Suggested depths of DF-EDC tie points

Depth (m)
DF1 ECM

DF1 ACECM

DF2 ECM

DF2 ACECM

Suggested depths of DF-EDC tie points

EDC ECM

EDC DEP

EDC Sulfate

Depth (m)