Reconstruction of Japan paleoclimate during the past 45 ka by measuring Be-10 and major elements in the sediment of Lake Biwa

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In this research, I attempt to reconstruct ancient climate around Lake Biwa, Japan.

Be-10 is produced when cosmic rays collide with oxygen or nitrogen in the stratosphere, and it falls to the ground slowly. The stronger the geomagnetism is, the less Be-10s is produced. There was a period known as the Laschamp geomagnetism excursion, when the geomagnetism considerably weakened.

A distinctive peak indicative of the Laschamp geomagnetism excursion in Be-10 concentration fluctuation was detected at 38 ka. It mutches the record of magnetism in Greenland. Be-10 and other major elements have their peaks almost simultaneously, except 38ka.