

**A Compilation of Geomagnetic Paleo-Intensity
Records Over the Past 150 ky: Prerequisite for
Calibrating Cosmogenic Ages**

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Geomagnetic intensity records are important for dating and correlating
formations and sediments as well as calibrating models of cosmogenic
nuclide production; yet, the accuracy of these records is uncertain and the
effects of localized fluctuations in Earth's magnetic field, significant. In
order to determine the coherence and similarity of published records, we
compiled 19 field strength records including 684 data points. It appears
that although the small scale features found in the records are locally
induced, there is a clear and robust global pattern of changes in the
magnetic field recorded by most data. Recognition of this global pattern
should allow for the correlation of worldwide sedimentary sequences in
addition to the widely accepted local correlations. We use this synthetic
global record as a driving mechanism in the calibration of cosmogenic
isotope exposure ages, a calibration which is dependent on a knowledge of
Earth's magnetic field strength history.

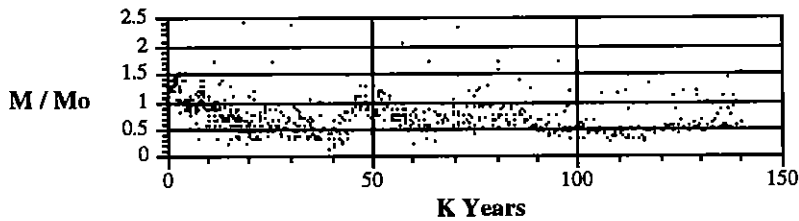


Figure 1. 684 relative geomagnetic field strength points from 19 researchers

1. 1996 Fall Meeting
2. 06403370
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