

Abstract:

This work consists of two parts, literature review and practical section. Literature review covers essential knowledge about magnetic field of Earth in attempt of understanding its inversion events. This section contains thistory of research of geomagnetism, key theories, physical quantities, magnetic properties of the minerals and outlines the knowledge of paleomagnetism.

Practical part concerns the analysis of geomagnetic field inversions. It deals with inversions that happened during the last 157, 53 million years (Gee and Kent, 2007) and compares the duration of normal and reversal polarity and both types together. Statistical methods of investigation, namely Gaussian distribution and frequency, were employed.

The evaluation of results showed that the average time between two inversions is: 124 000 years for normal, 450 000 years for reversal and 287 000 years for both types. The intervals shortened over last 80 million years.

Comparing the frequencies of each period following results were obtained: both types usually lasts about 350 000 years, periods that are shorter than 350 000 years appears more often for normal polarity, but the frequencies of longer periods are similar for both types.