

## PERIODICITY OF PRECAMBRIAN CRUSTAL-MANTLE EVENTS OF THE EARTH

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Hundreds of researchers addressed themselves to the problem of periodicity of crustal-mantle processes in the Earth. Different periodicity equal to 33, 50, 100, 150, 200, 250, 300, 500 and 600 Myr have been proposed. What type of cyclicity is real ? I present results of a summary of over 4.5 thousand datings of rocks from all continents. It has made possible to suggest the existence of periodicity of near 100 Myr in the maximum activity of mantle magmatism with peaks of weighted average ages ( $\pm 10$  Myr): 4400 (4-number of datings); 4276 (5); 4204 (3); 4114 (8); 3924 (5); 3822 (11); 3714 (31); 3610 (11); 3511 (19); 3417 (16); 3312 (18); 3216 (18); 3111 (15); 3012 (19); 2911 (25); 2811 (33); 2713 (40); 2614 (32); 2511 (22); 2417 (14); 2309 (16); 2215 (15); 2115 (19); 2017 (16); 1911 (13); 1811 (17); 1713 (20); 1611 (9); 1511 (8); 1414 (13); 1313 (8); 1214 (10); 1116 (12). The beginning of the transformation of the primary crust older than 4.2 Gyr were obtained for detrital zircon published data. To reconstruct the nature of detrital zircons of Mt. Narryer, Yilgarn Block, West Australia I used the empirical diagram of U and  $^{208}\text{Pb}/^{206}\text{Pb}$  in the zircons. The data indicate that the zircons were derived from two groups of initial rocks – volcanics and tonalites. This study was supported by Russian Fund of Fundamental Investigations (97-05-64863).