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orthogonal function waves having waveforms each having said same start position and said same end position;

estimating means for selecting the largest sum among all of the sums discriminated by said operation discriminating means every predetermined number of orthogonal function waves having the waveforms each having the same start position and the same end position and estimating a pitch frequency from a period or a frequency of said orthogonal function wave corresponding to said fundamental wave presumed in said operation by which the selected sum was obtained; and

eliminating means for eliminating from said original signal the component of said orthogonal function wave corresponding to said pitch frequency estimated by said estimating means and the components of said orthogonal function waves corresponding to harmonics of said fundamental wave corresponding to the estimated pitch frequency,

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wherein a residual component of said original signal which is obtained as a result of said eliminating means is supplied as a new original signal to said spectrum detecting means.

15. A frequency analyzing method according to claim 1, further comprising a step of:

obtaining respective energy levels of the same frequency components of a plurality of analysis frames, the frames having the same width and located at different positions in said predetermined time window, to average a plurality of said energy levels.

16. A frequency analyzing apparatus according to claim 12, further comprising:

means for obtaining respective energy levels of the same frequency components of a plurality of analysis frames, the frames having the same width and located at different positions in said predetermined time window, to average a plurality of said energy levels.

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