quency modulation signals are required to perform the Fourier transformation of the preceding signals by the two-pulse method [7].

From Fig. 4 and expression (3) for the formation time of the echo signal it is evident that, to decrease processing time it is necessary to decrease as much as possible the intervals between the second and third and the third and fourth signals. Then from (3) it is easy to obtain the condition determining the time position of the last control signal: $t_4 \geq 2t_3$.

Multiplication of two signals in a single-channel echo processor permits simplification of the processing of signals the duration of which is comparable with the relaxation times of the active substance. In the processing of long signals there occurs not only attenuation of the amplitude of the echo signals, but also significant distortion of their form [8]. Skoblikov and Ustinov [8] proposed, in order to eliminate this distortion, to introduce a preliminary distortion of the signals being processed, such that the effect of the relaxation processes on the form of the echo signals is compensated. In this case, however, control of the processor is much more complex.

To simplify this procedure the method for multiplying two signals described above may be used if, as the signals to be multiplied, the active substance of the echo processor is fed the spectra of the signals being processed, which spectra must be obtained by means of some spectroanalytic device operating in real time. This operation can be performed, for example, in filters based on surface acoustic waves. After multiplication of the spectra it is possible to perform in this same echo processor a Fourier transformation of the resulting product [7] in order to obtain the convolution of the signals or their correlation function. The effect of the relaxation processes on the form of the response will be excluded, if the time interval occupied by the spectra of the signals being processed is significantly less than the relaxation times of the substance.

The proposed method evidently permits broadening of the class of signals which can be processed in spin echo processors.

The large number of echo signals arising in the echo processor when the number of control signals is increased cannot significantly limit the application of this method, since all extraneous echo signals can be suppressed with the aid of strong "erasing" pulses [9].

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ERRATA

In issue No. 4, 395-405 (1985), of this journal the author of the article (entitled: "Dynamic characteristics of stimulated radio emission from ionospheric plasma") with the name M. A. Yurishcheva was unintensionally omitted from this article.

We are sorry for this omission.

The Authors