

Abstract

**A method and device for processing
underwater sound signals**

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The invention relates to a method for processing underwater sound signals, more specifically amplitude-modulated broadband sounds, which are radiated or emitted by vehicles. The broadband sounds are received in a direction-selective manner by means of a sonar device 2 and subjected to a spectral analysis 10, more specifically a DEMON-analysis 10. The spectral analysis 10 then generates corresponding frequency spectra 18 from the acoustic signals 8. A local maximum 36 is determined within the frequency spectrum 18, the local maxima 36 corresponding to individual frequency lines 38. Based on the determined frequency lines 18, a synthetic spectrum 42 is generated, which is subjected to a spectral synthesis 44, more specifically a DEMON-synthesis 44, which generates a corresponding synthetic time signal 50. In accordance with the spectral synthesis 44, a synthetic amplitude-modulated signal 58 is generated from this time signal 50 and a carrier signal 56, which is issued to the operator as an acoustic signal 58.

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The invention furthermore relates to a device for implementing the method according to the invention.