

Title (en)

METHOD AND SYSTEM FOR PROCESSING AUDITORY SIGNALS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR VERARBEITUNG VON TONSIGNALEN

Title (fr)

PROCEDE ET SYSTEME DE TRAITEMENT DE SIGNAUX AUDITIFS

Publication

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Application

**EP 96928357 A 19960904**

Priority

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Abstract (en)

[origin: WO9709712A2] The invention relates to a method and a system for processing an auditory signal to facilitate identification of abrupt energy changes within the auditory signal, which abrupt energy changes have a rise time of at the most 3 ms, and which abrupt energy changes can be perceived by a human ear as representing a distinct sound picture. The abrupt energy changes representing the distinct sound picture can be a phoneme. When processing the auditory signal a first signal comprising transient pulses corresponding to at least part of the abrupt energy changes is generated, and a second transient signal is generated by monitoring pulses in the first transient signal, determining local maxima of the transient pulses, and holding the value of at least one determined local maximum of a pulse in the first transient signal at said maximum value for a predetermined period of time thereby generating a corresponding pulse in the second transient signal. It is preferred that the predetermined period of time equals the refractoriness period of nerve pulses launched from the cochlea of the human ear. The shape of the pulses of the second signal may be used for identification of the corresponding distinct sound picture. The invention further relates to a method and a system for selecting leading edges of transient pulses derived from the abrupt energy changes in the auditory signal.

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