CLAIMS

1. A method for detecting an audio signal, wherein the method comprises:

determining an audio signal which is inputted as a to-be-determined audio signal if a quantity of high-frequency end sub-bands that are in the audio signal and whose SNRs are greater than a first preset threshold is greater than a first quantity;

determining an enhanced segmental signal-to-noise ratio, SSNR, of the audio signal, wherein the enhanced SSNR is greater than a reference SSNR and the reference SSNR is calculated by adding up all sub-band SNRs of the audio signal; and

comparing the enhanced SSNR with a voice activity detection, VAD, decision threshold to determine whether the audio signal is an active signal,

wherein determining the enhanced SSNR of the audio signal comprises:

determining the reference SSNR of the audio signal; and

determining the enhanced SSNR according to the reference SSNR of the audio signal.

2. The method according to claim 1, wherein the determining the enhanced SSNR according to the reference SSNR of the audio signal comprises:

determining the enhanced SSNR by using the following formula:

$SSNR' = x * SSNR + y$, wherein

SSNR indicates the reference SSNR, $SSNR'$ indicates the enhanced SSNR, and x and y indicate enhancement parameters.

3. The method according to claim 1 or claim 2, wherein the audio signal is divided into 20 sub-bands, and the audio signal comprises sub-band 0 to sub-band 19, sub-band 18 and sub-band 19 are the high-frequency end sub-band.

4. A method for detecting an audio signal, wherein the method comprises:

determining an audio signal which is inputted as a to-be-determined audio signal if a quantity of high-frequency end sub-bands that are in the audio signal and whose SNRs are greater than the first preset threshold is greater than a first quantity;

determining a weight of a sub-band signal-to-noise ratio, SNR, of each sub-band in the audio signal, wherein a weight of a sub-band SNR of a high-frequency end sub-band whose SNR is greater than a first preset threshold is greater than a weight of a sub-band SNR of another sub-band;

determining an enhanced segmental signal-to-noise ratio, SSNR, according to the

sub-band SNR of each sub-band and the weight of the sub-band SNR of each sub-band in the audio signal, wherein the enhanced SSNR is greater than a reference SSNR and the reference SSNR is calculated by adding up all sub-band SNRs of the audio signal; and

comparing the enhanced SSNR with a voice activity detection, VAD, decision threshold to determine whether the audio signal is an active signal.

5. The method according to claim 4, wherein the audio signal is divided into 20 sub-bands, and the audio signal comprises sub-band 0 to sub-band 19, sub-band 18 and sub-band 19 are the high-frequency end sub-band.

6. An apparatus, wherein the apparatus comprises:

a first determining unit, configured to determine an audio signal which is inputted as a to-be-determined audio signal if a quantity of high-frequency end sub-bands that are in the audio signal and whose SNRs are greater than a first preset threshold is greater than a first quantity;

a second determining unit, configured to determine an enhanced segmental signal-to-noise ratio, SSNR, of the audio signal, wherein the enhanced SSNR is greater than a reference SSNR and the reference SSNR is calculated by adding up all sub-band SNRs of the audio signal; and

a third determining unit, configured to compare the enhanced SSNR with a voice activity detection, VAD, decision threshold to determine whether the audio signal is an active signal,

wherein the second determining unit is specifically configured to determine the reference SSNR of the audio signal and determine the enhanced SSNR according to the reference SSNR of the audio signal.

7. The apparatus according to claim 6, wherein the second determining unit is specifically configured to determine the enhanced SSNR by using the following formula:

$SSNR' = x * SSNR + y$, wherein

SSNR indicates the reference SSNR, $SSNR'$ indicates the enhanced SSNR, and x and y indicate enhancement parameters.

8. The apparatus according to claim 6 or claim 7, wherein the audio signal is divided into 20 sub-bands, and the audio signal comprises sub-band 0 to sub-band 19, sub-band 18 and sub-band 19 are the high-frequency end sub-band.

9. An apparatus, wherein the apparatus comprises:

a first determining unit, configured to determine an audio signal which is inputted as a to-be-determined audio signal if a quantity of high-frequency end sub-bands that are in the audio signal and whose SNRs are greater than the first preset threshold is greater than a first quantity;

a second determining unit, configured to determine a weight of a sub-band signal-to-noise ratio, SNR, of each sub-band in the audio signal, wherein a weight of a sub-band SNR of a high-frequency end sub-band whose SNR is greater than a first preset threshold is greater than a weight of a sub-band SNR of another sub-band, and determine an enhanced segmental signal-to-noise ratio, SSNR, according to the sub-band SNR of each sub-band and the weight of the sub-band SNR of each sub-band in the audio signal, wherein the enhanced SSNR is greater than a reference SSNR and the reference SSNR is calculated by adding up all sub-band SNRs of the audio signal; and

a third determining unit, configured to compare the enhanced SSNR with a voice activity detection, VAD, decision threshold to determine whether the audio signal is an active signal.

10. The apparatus according to claim9, wherein the audio signal is divided into 20 sub-bands, and the audio signal comprises sub-band 0 to sub-band 19, sub-band 18 and sub-band 19 are the high-frequency end sub-band.