

Loudness

We subjectively assign a **loudness** to a given intensity of sound of a certain frequency.

To quantify loudness is used the unit **phon (Ph)**, which has been determined by measuring curves of equal loudness levels (**isophons**) in healthy subjects. Each curve corresponds to the **same** auditory perception at **different** frequencies. The number of phons was assigned to each curve according to the number of dB at frequency **1 kHz**.

Thus, the loudness level for any tone is determined by varying the intensity of the reference tone ($f = 1 \text{ kHz}$) until it has the same loudness as the tone to be determined. The number of phons of the tone **equals the number of absolute dB** of the reference tone.

Links

Related articles

- Hearing Field

External sources

- Loudness (english wikipedia)

Sources

- KUBATOVA, Senta. *Biofot* [online]. [cit. 2011-01-31]. <<https://uloz.to/!CM6zAi6z/biofot-doc>>.