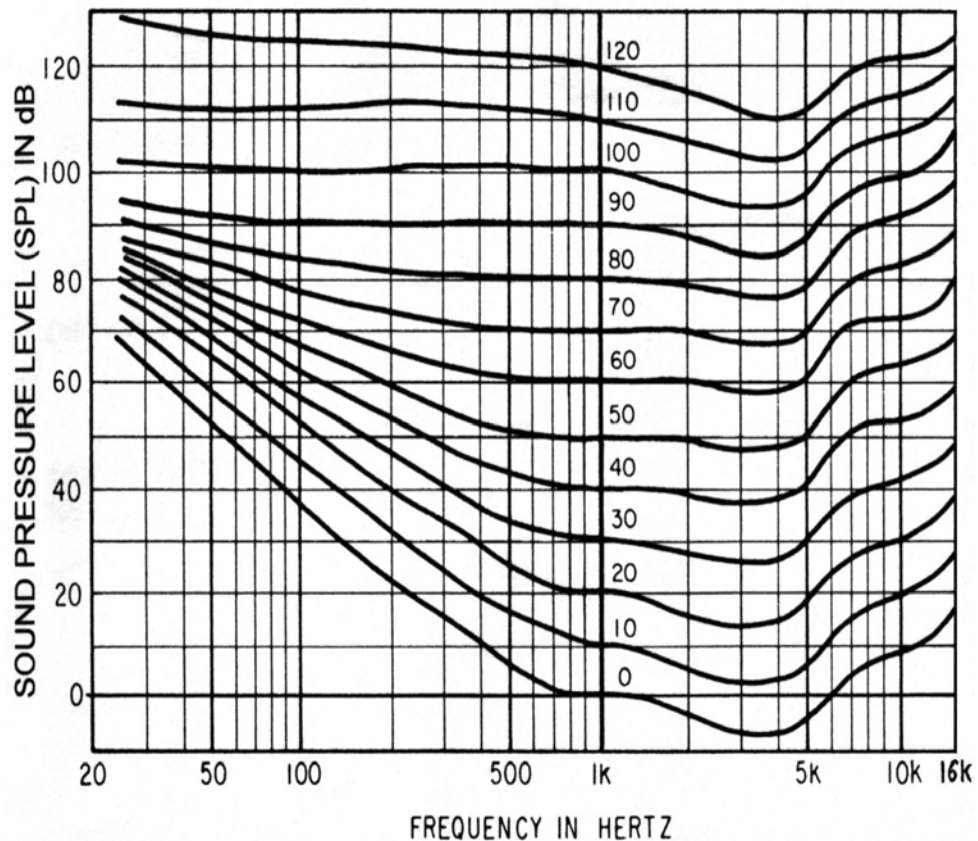


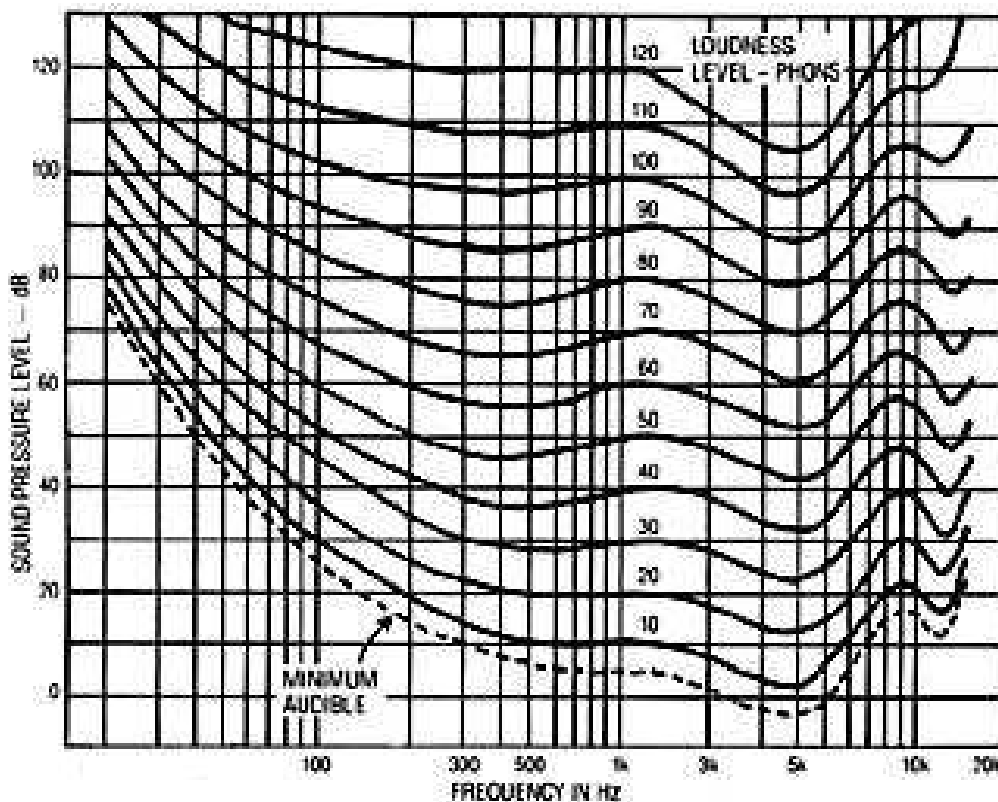


UdK Berlin
Sengpiel
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Formant

Fletcher-Munson is not Robinson-Dadson



Fletcher-Munson (1933): Curves of equal-loudness level "found" with pure tones via headphones. Harvey Fletcher and Wilden A. Munson organized this first psychoacoustic research project.



Robinson-Dadson (1956): Curves of equal-loudness level (isophones). "Found" with frontal sound incidence of pure tones via a center loudspeaker in an anechoic room (free field). D.W. Robinson and R.S. Dadson.

Often these Robinson-Dadson contours, which were the international ISO-recommendations R 226 (R454) and DIN 45630 Bl.2 (DIN 1318), are not correctly called Fletcher-Munson curves. Because you never know, which curves are meant, you should compare this curves and memorize the differences. Look at the nearly even Fletcher-Munson line at 100 phons or 90 phons below 1000 Hz of the first figure. It is better to use the term 'Equal-loudness contours' as the generic term, especially a survey by ISO (2003) redefined the curves as the new ISO 226:2003 standard, that follows neither Fletcher-Munson nor Robinson-Dadson.

Have a look at "Equal-loudness contour curves" revised: <http://www.sengpielaudio.com/Acoustics226-2003.pdf>