

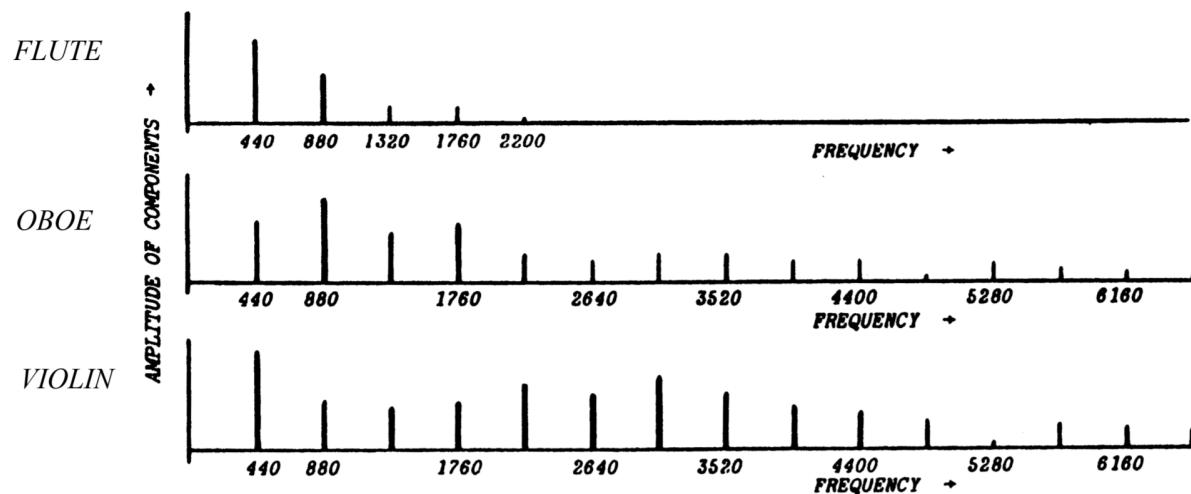
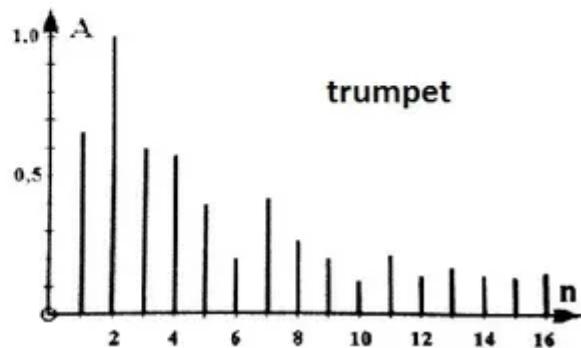
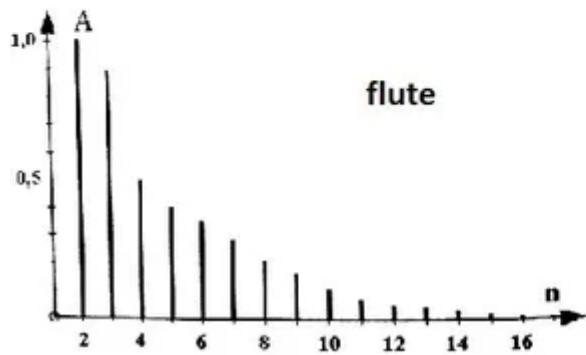
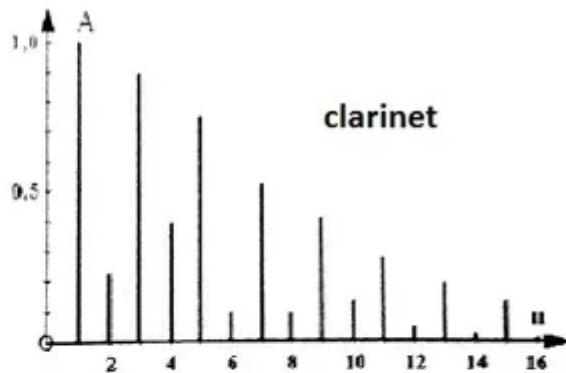
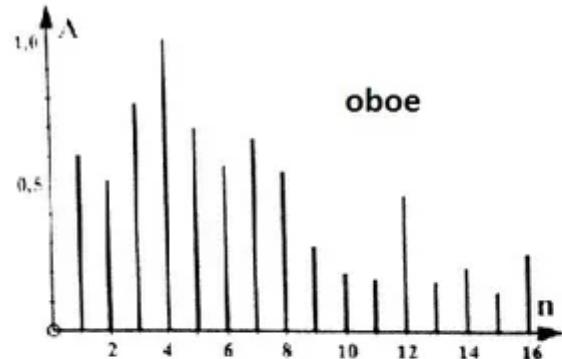


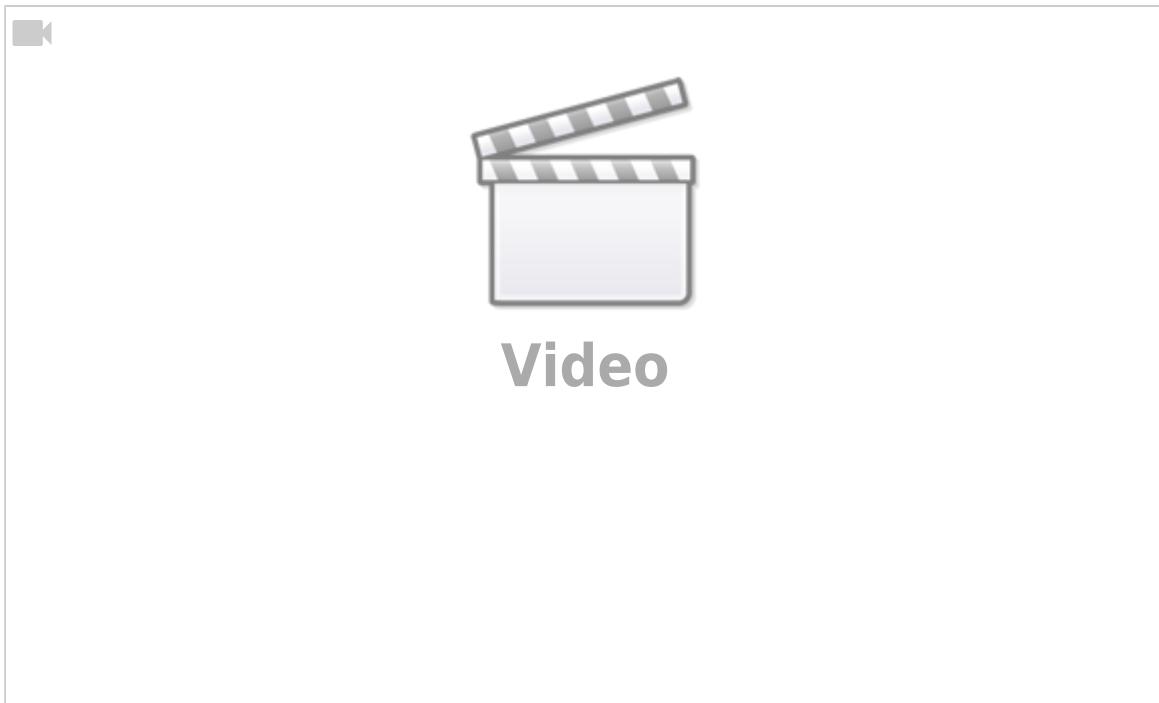
<http://wiki.homerecz.com>

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.....	5
Timbre	6
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.....	11
.....	12
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" "

(ADSR)





Timbre

Timbre, also known as “tone color” in music, is the characteristic of sound that allows us to distinguish different instruments or voices even when they are playing the same pitch at the same volume. In other words, it's what makes a guitar sound different from a piano or a trumpet distinct from a saxophone.

Timbre is influenced by the composition of the fundamental and harmonics, as well as the envelope (ADSR) of both the fundamental and harmonics.

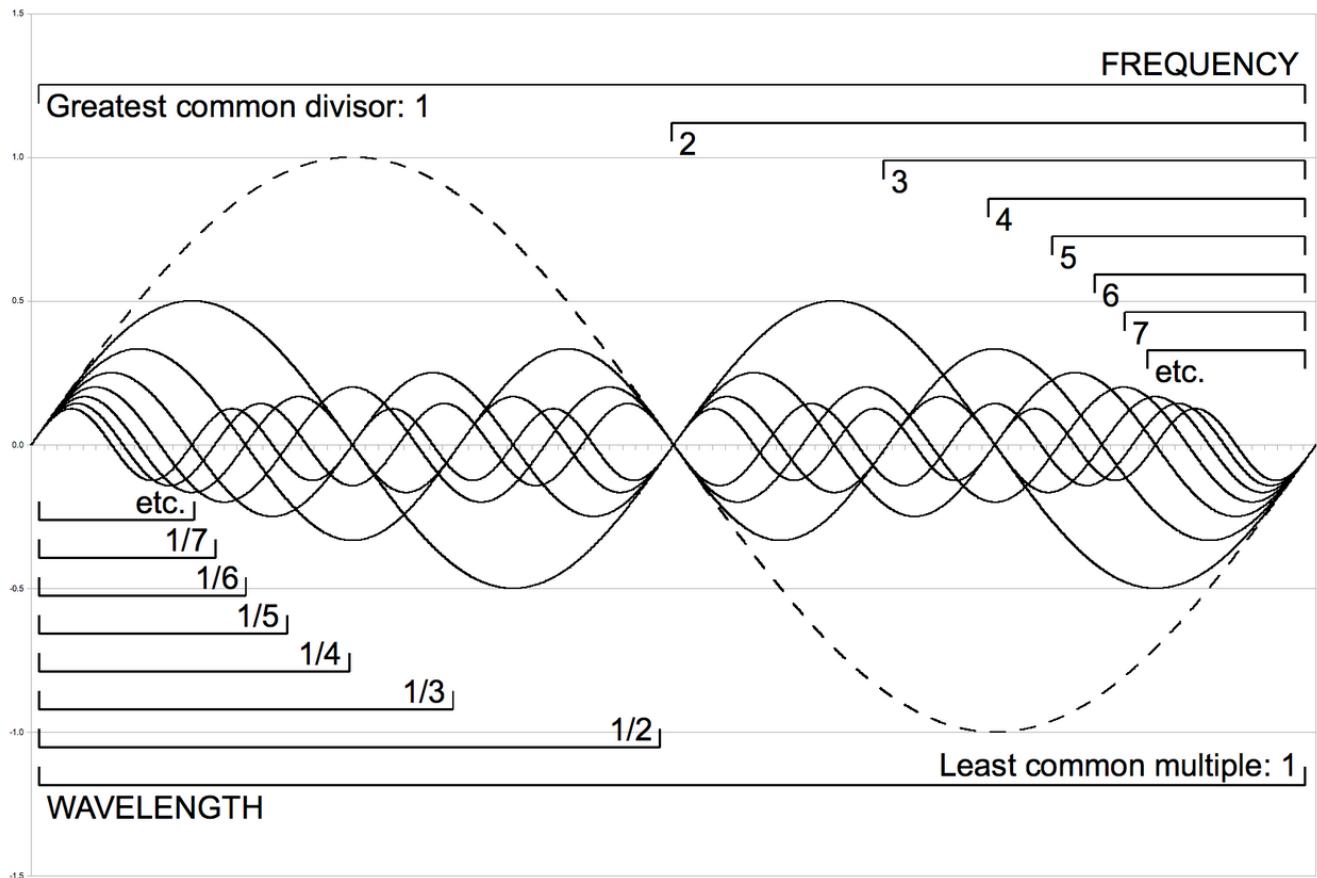
(fundamental)

가

가

가

(complex tone)



(Harmonics)

(Fundamental)

가

$$261.63\text{Hz} = 784.88\text{Hz}$$

C4 (4)

가 261.63Hz

2

$$2 \times 261.63\text{Hz} = 523.25\text{Hz}$$

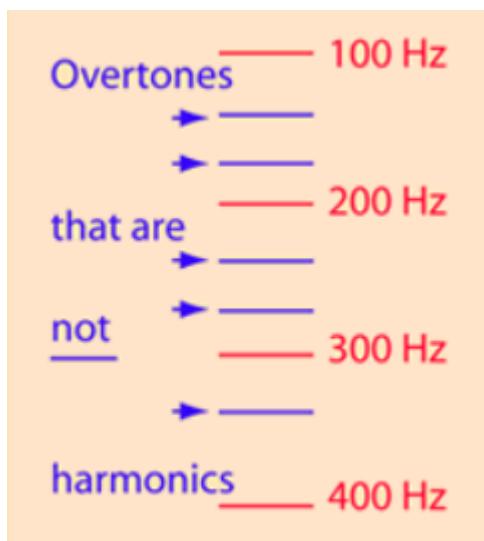
, 3

$$3 \times$$

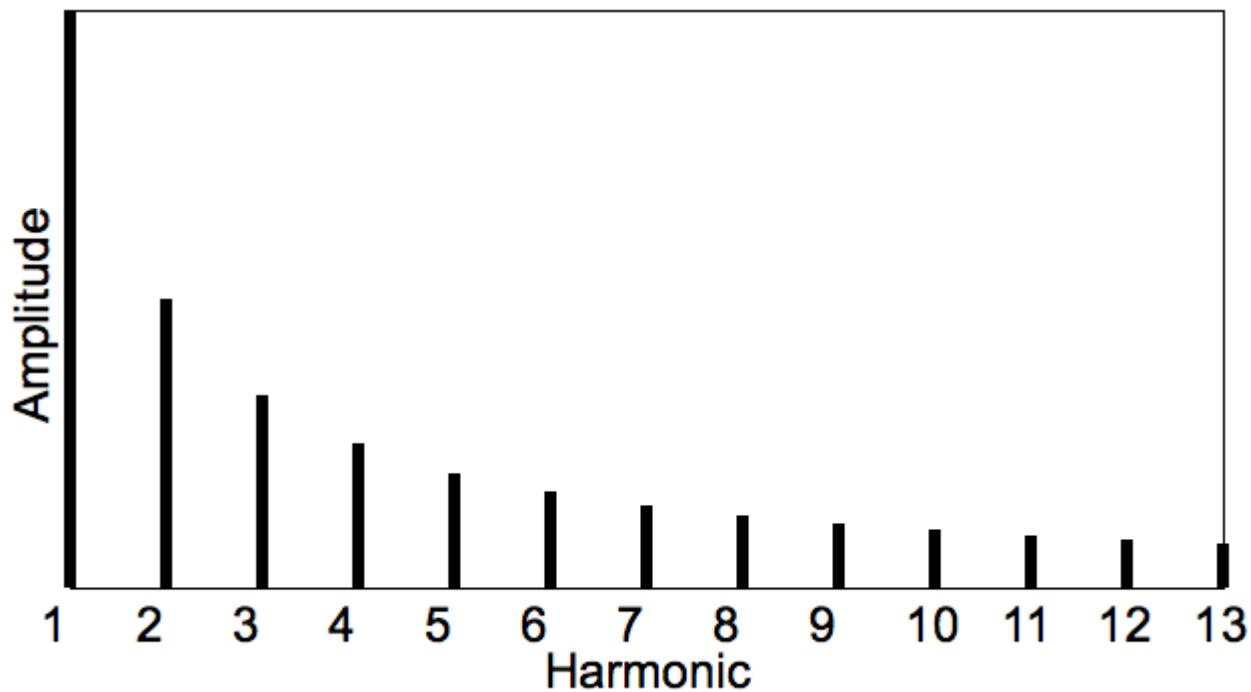
(Complex tone)

가 , 가 1)
가 , 가 2)
()

,
“ “ “ “
가



(Timbre)



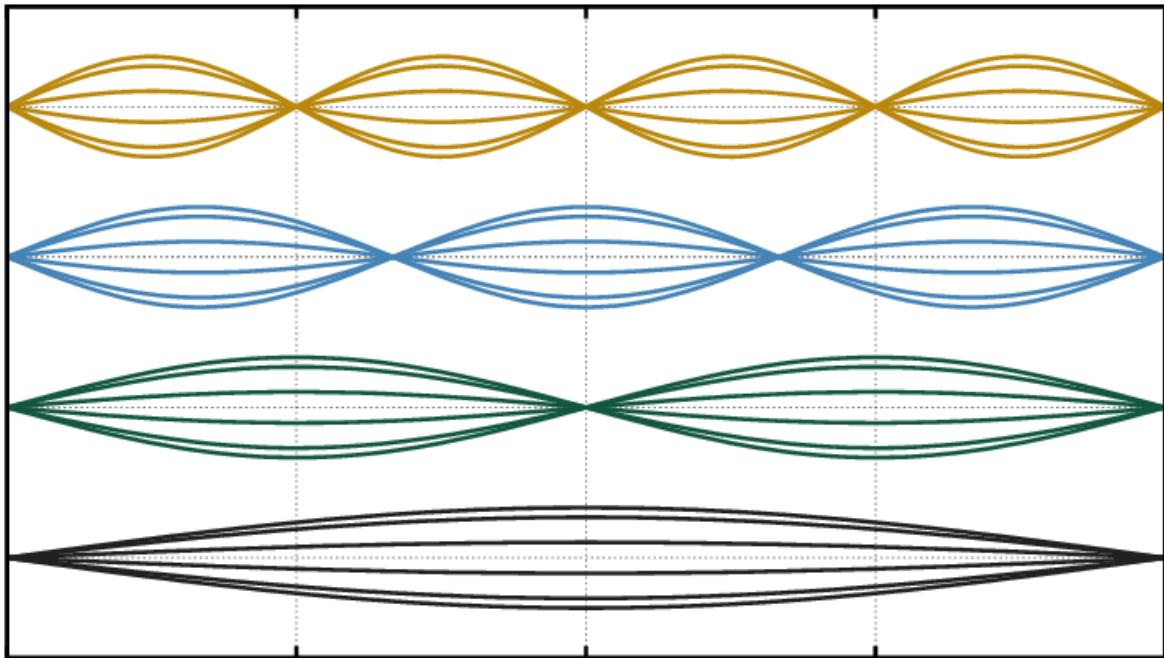
가 . , ,

$$v = \sqrt{\frac{T}{\rho}}$$

$$f = \frac{v}{\lambda} = \frac{1}{2L} \sqrt{\frac{T}{\rho}}$$

- L:
- ρ:
- T:

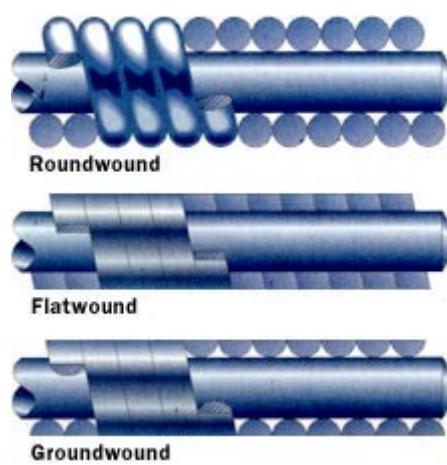
가 ,
가 (Ridgid body string) 가 ,
가 .

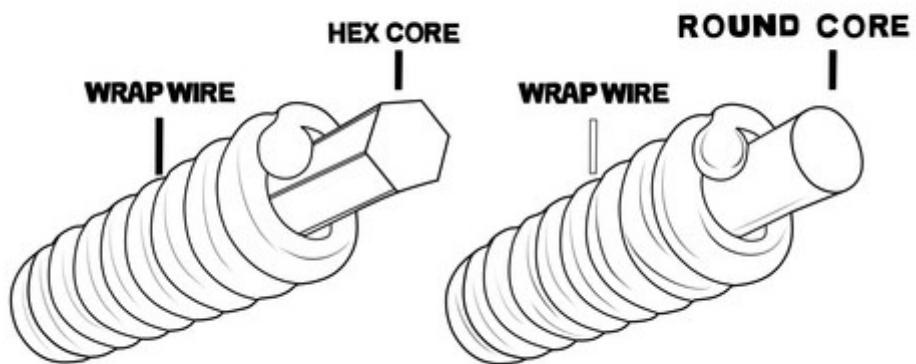


(Core String)

가

Hex Core



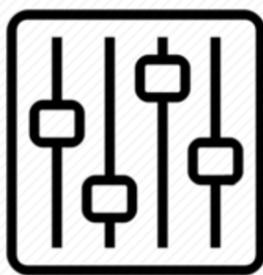


<https://en.wikipedia.org/wiki/Inharmonicity>

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: (admin@homerecz.com)