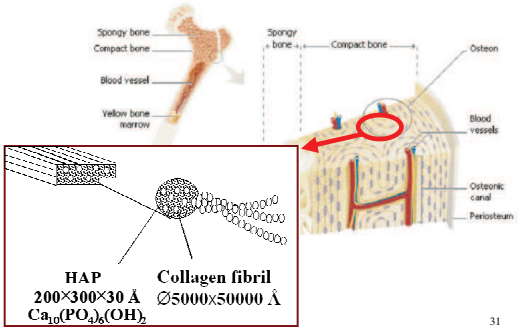
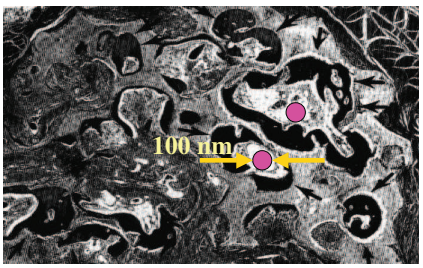
Kauls – dabisks nanostruktūrēts materiāls

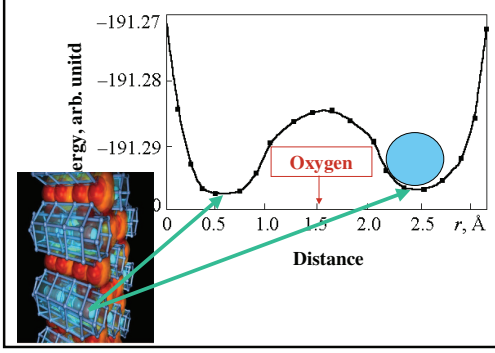


31

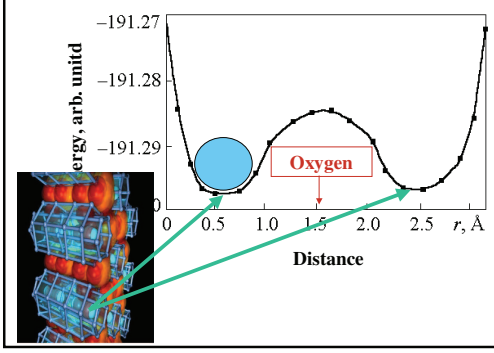
“ Scaffolds” / *Hidroksiapatīts*



32



33

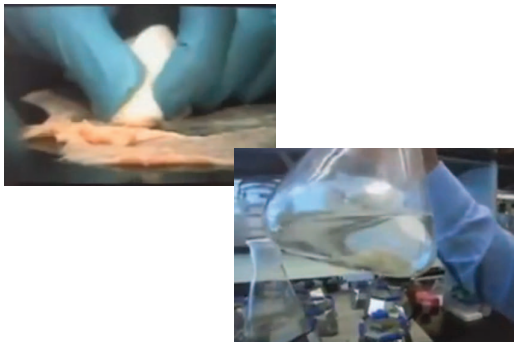


34

Pirksta reģenerācija

http://www.youtube.com/watch?v=gX1uD9CDtLs; 2009.21.05.

35



http://www.youtube.com/watch?v=gX1uD9CDtLs; 2009.21.05.

36

http://www.youtube.com/watch?v=gX1uD9CDtLs; 2009.21.05.

37

Skaņas signāla pastiprināšana

- dizains
- pastiprināta skaņas spektra adekvātums
- miniaturizācija
- enerģijas patēriņa samazināšana
- daudzfunkcionalitāte
- biosaderība

Nanoelektronika

Virsmas nanofunkcionalizācija

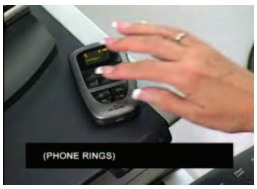
38

Nanoelektronika

http://www.starkey.com/products/destiny_styles_bte.jsp
2009.10.05.

39

"Blue tooth"



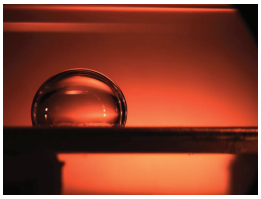
Telefons

TV

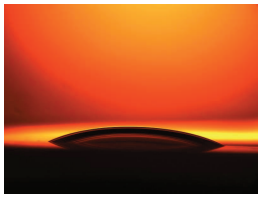
http://www.britannica.com/blogs/2008/09/hi-tech-hearing-aids/
2009.29.04.

40

Virsmas nanofunkcionalizācija



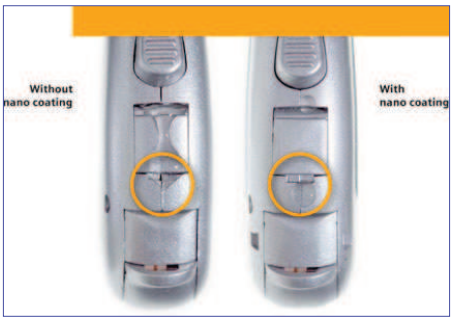
↓



↑

Slapināšana

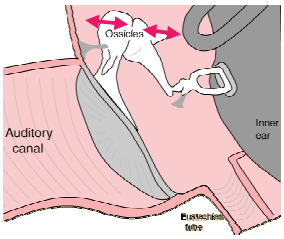
41



https://hearing.siemens.com/en/06-technology/04-nano-coating/nano-coating.jsp
2009.10..05.

42

Protezēšana

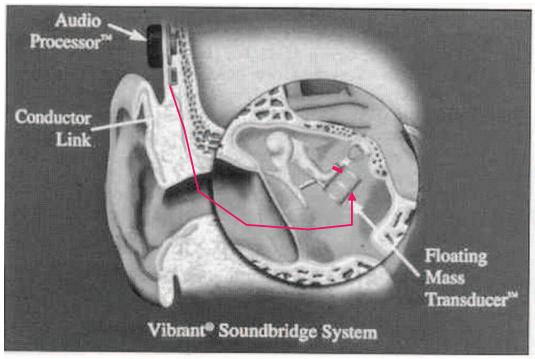


43

Peizoelectric Device

http://www.middleearimplants.com/
2009.12.09.

44



http://www.middleearimplants.com/
2009.12.09.

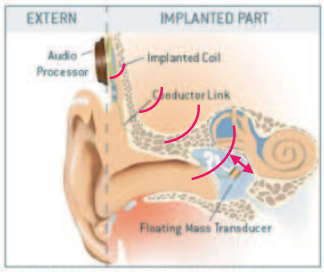
45

The magnet that attaches to the stapes bone in the middle ear is little larger than the tip of a ball point ink pen.

http://researchnews.osu.edu/archive/midear1.htm

2009.10.05.

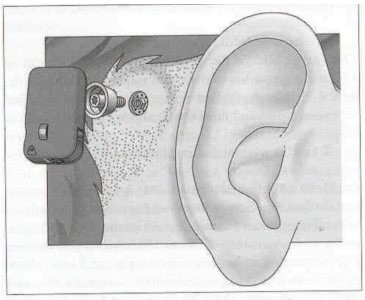
46



Vibrant Soundbridge Electromagnetic Device

http://www.middleearimplants.com/
2009.12.09.

47



48

49

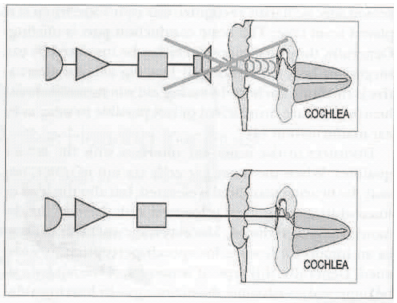
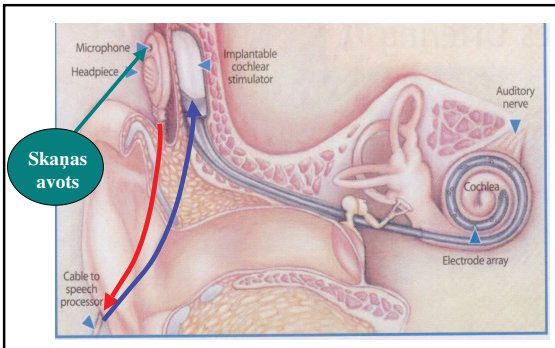
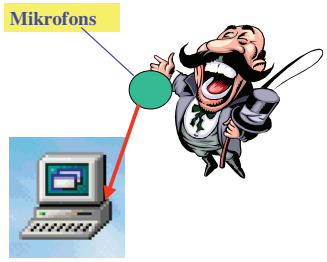


Fig. 2: Principle of propagation in sound information to the cochlea by a conventional hearing aid (above) and an Cochlea amplifier implant (above) (Reprint with courtesy of VIBRANT MED-EL Hearing Technology).

50

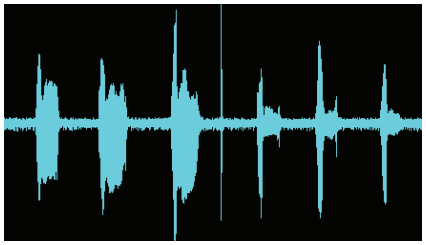


51

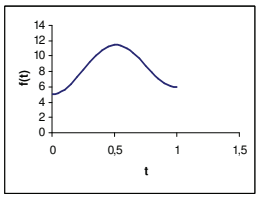


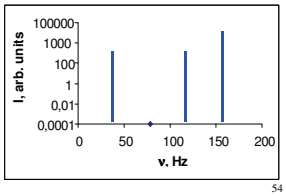
52

N "N"



53





54

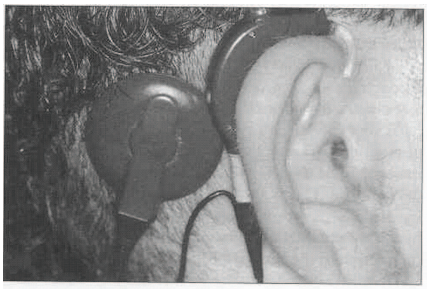


Fig. 5b: Patient with a fitted cochlear implant.

55

Paldies par uzmanību!

56