

# Technika i Metody Rejestracji EEG

***Piotr WALERJAN***  
***K.N.i E. CMKP***

# Parametry sygnału EEG

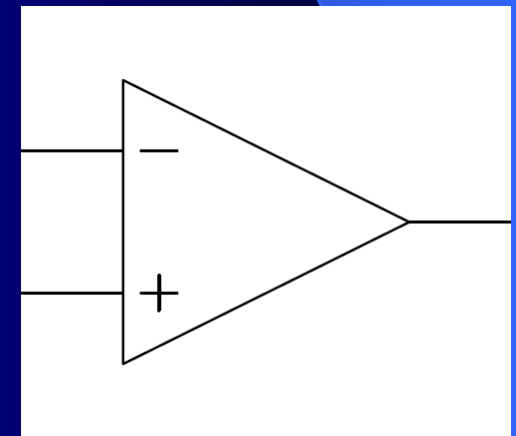
- Mała amplituda sygnału – rzędu dziesiątek  $\mu V$
- Oporność elektrod – kilka  $k\Omega$
- **Konieczność wzmocnienia sygnału!**

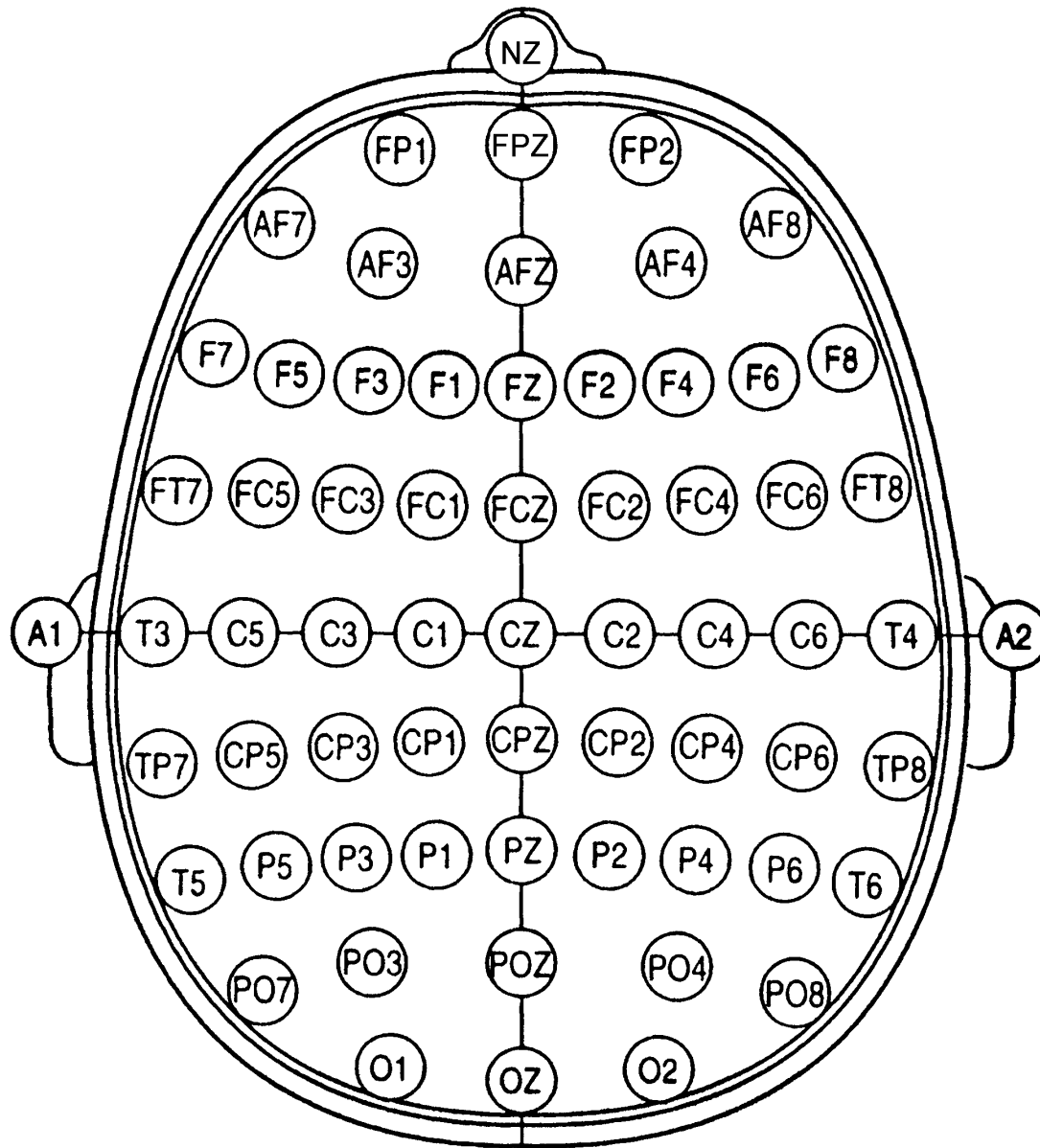
# Wzmacniacz różnicowy

- teoretycznie nieskończone wzmocnienie
- teoretycznie nieskończona oporność
- teoretycznie brak wzmocnienia sygnału wspólnego

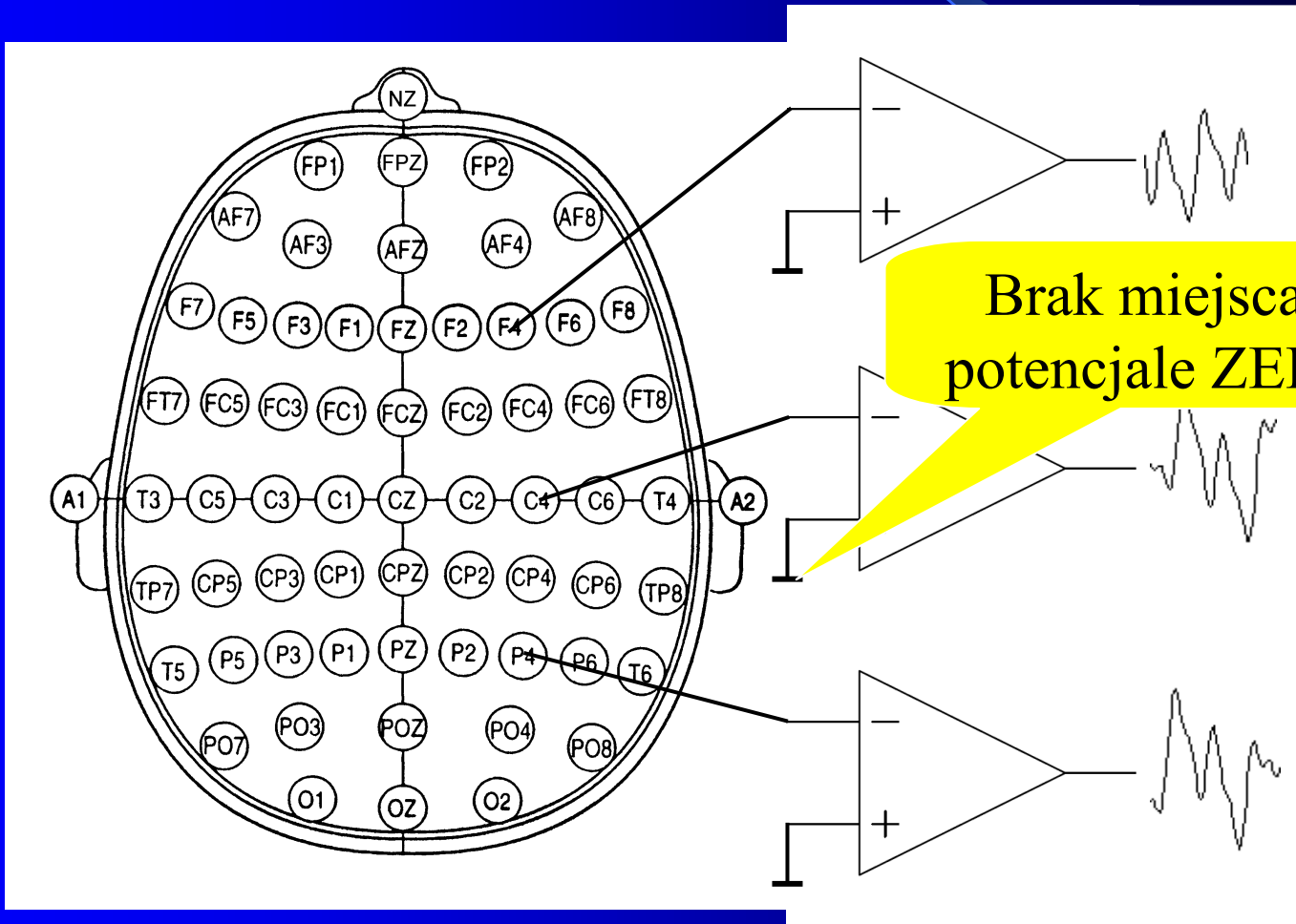
Sygnal wyjściowy

$$= (V^+ - V^-) * k$$

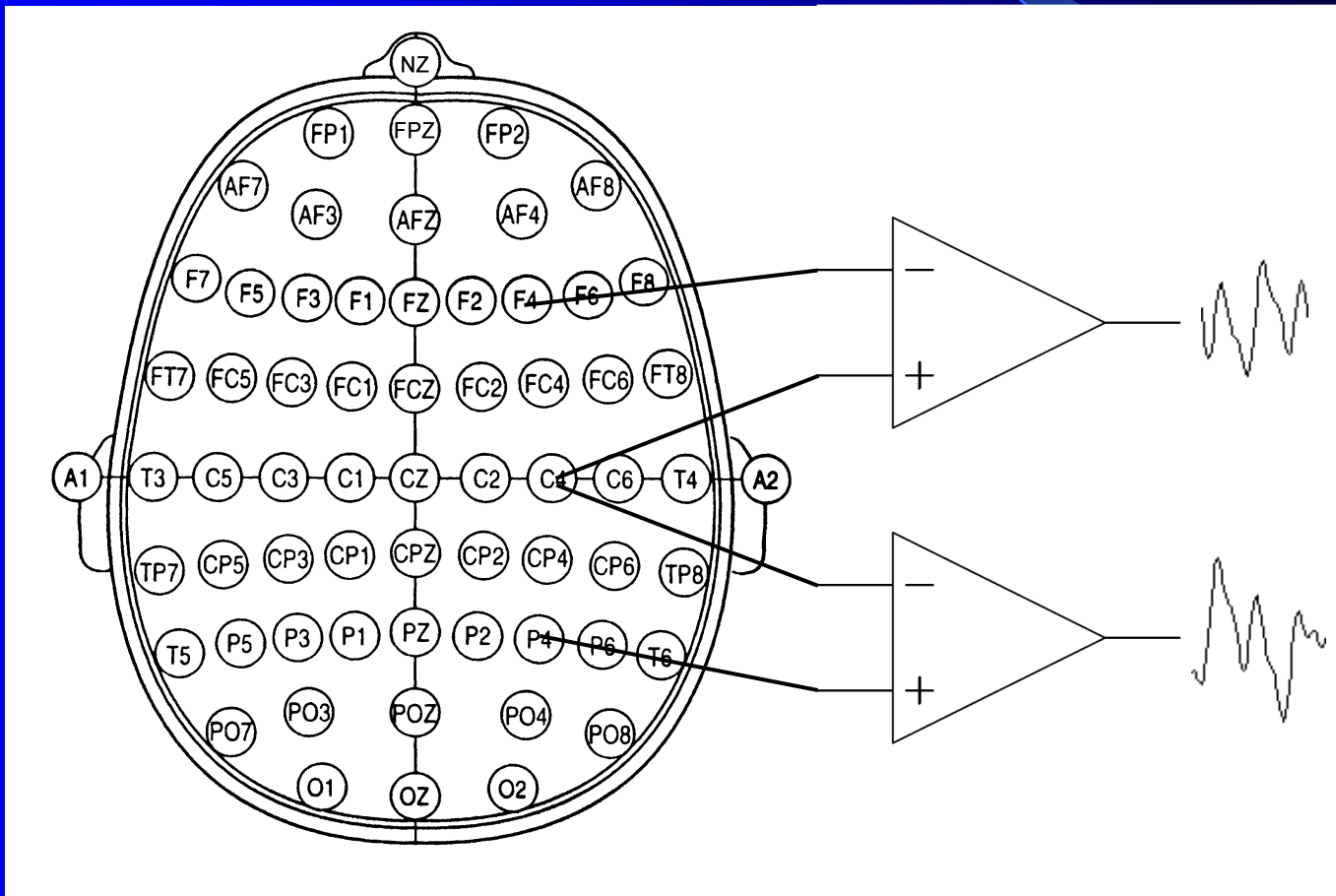




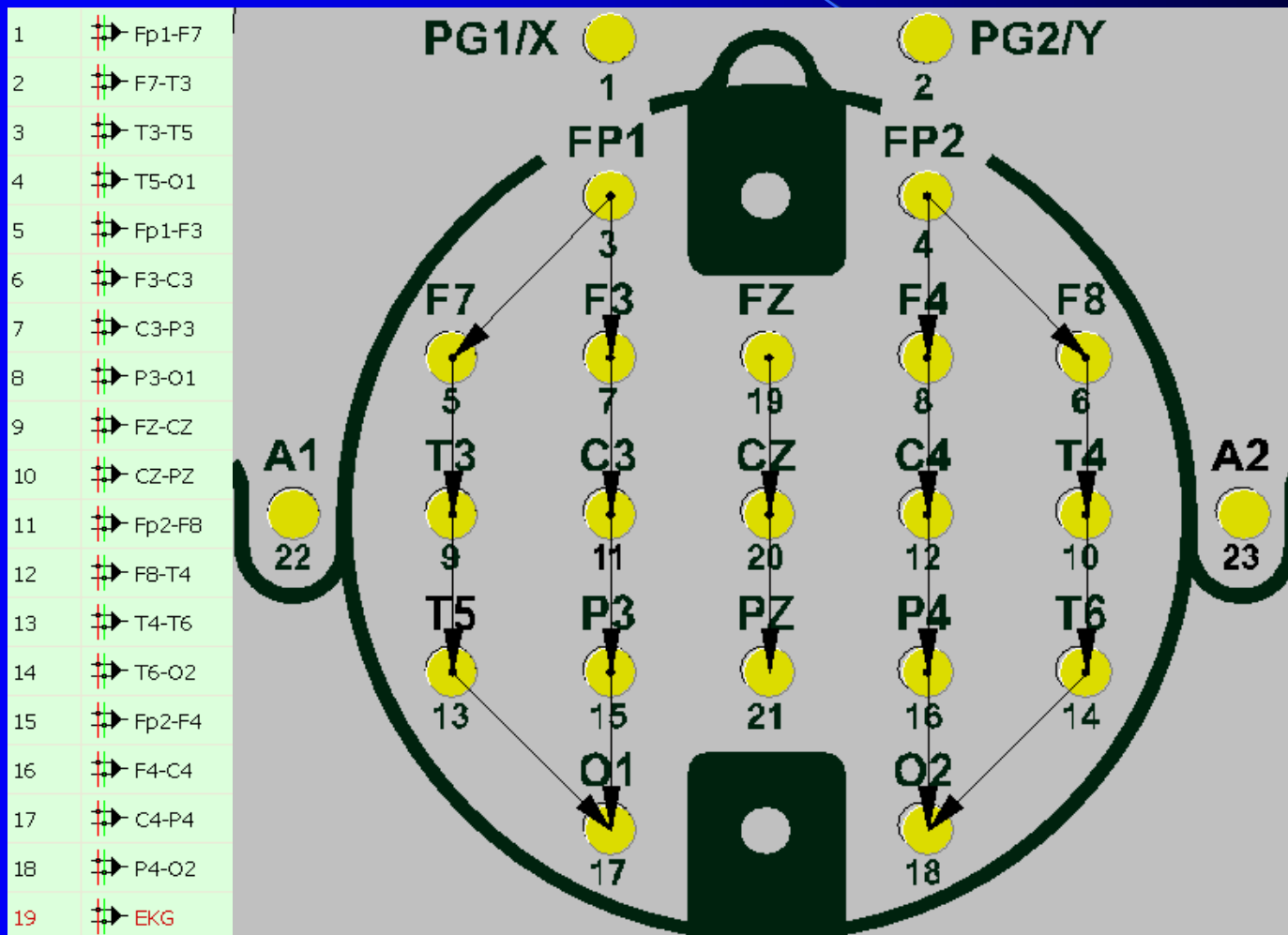
# Odprowadzenie monopolarne - jednobiegunowe



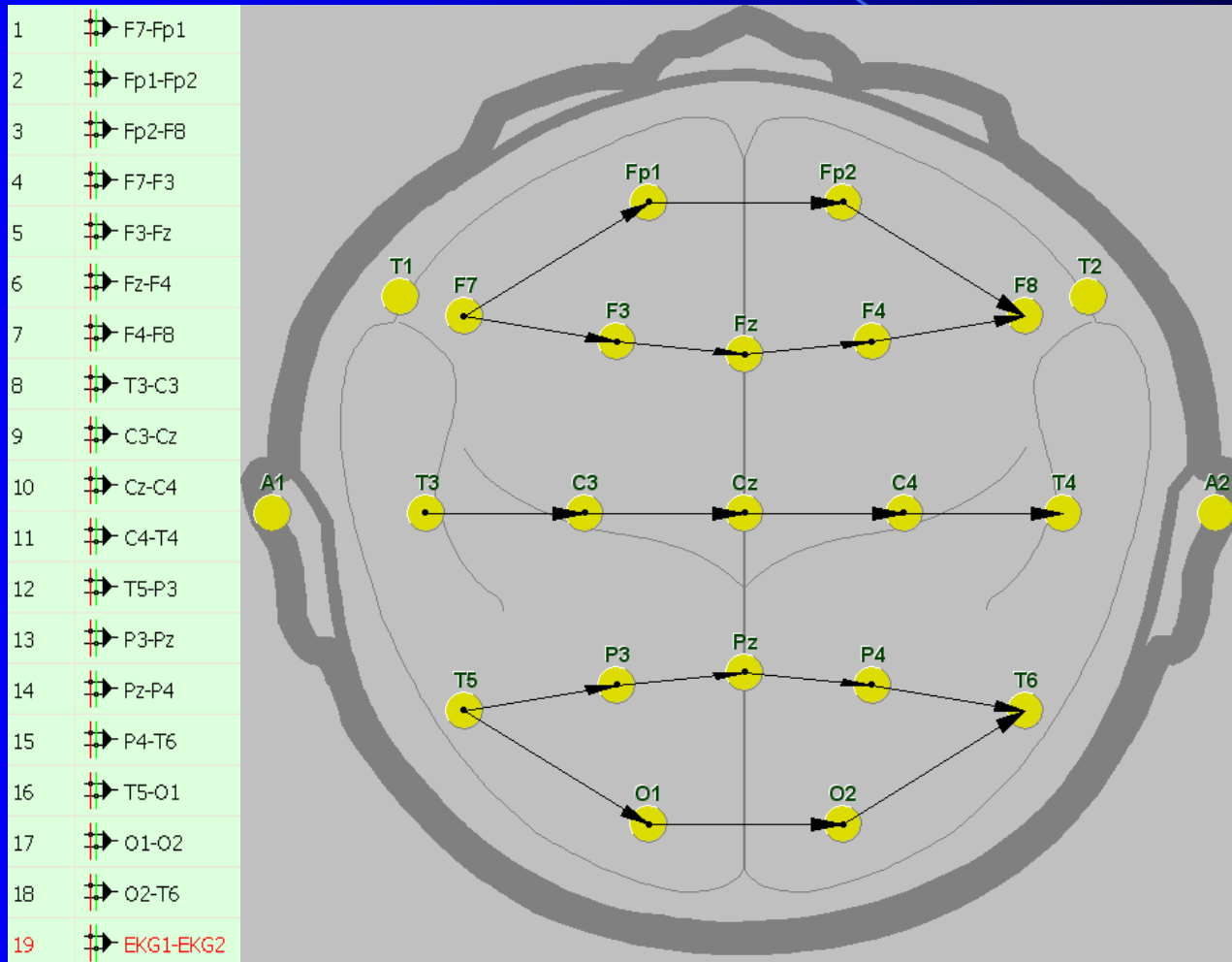
# Odrowadzenie bipolarne - dwubiegunowe



# Montáže 1

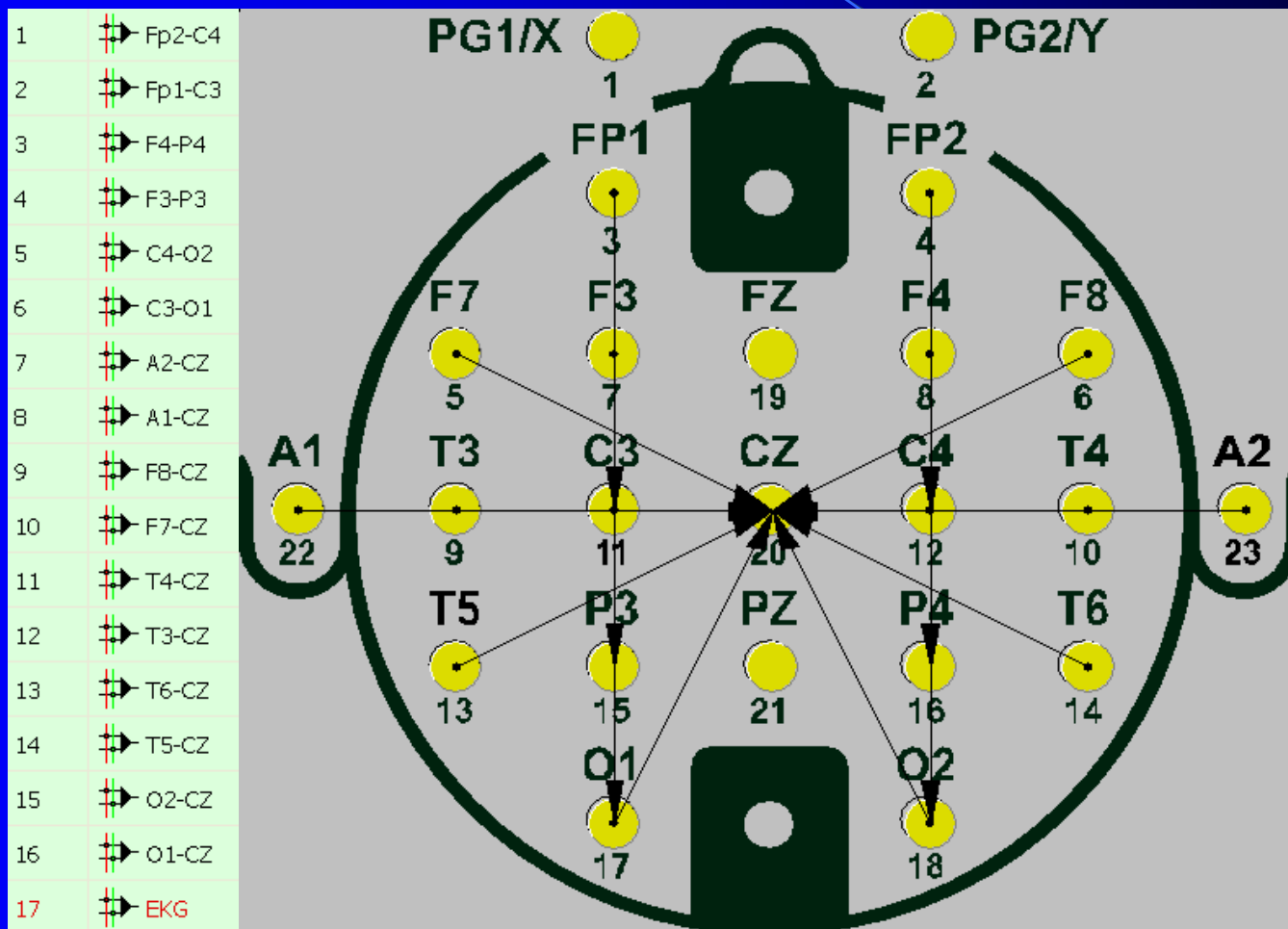


# Montáže 2

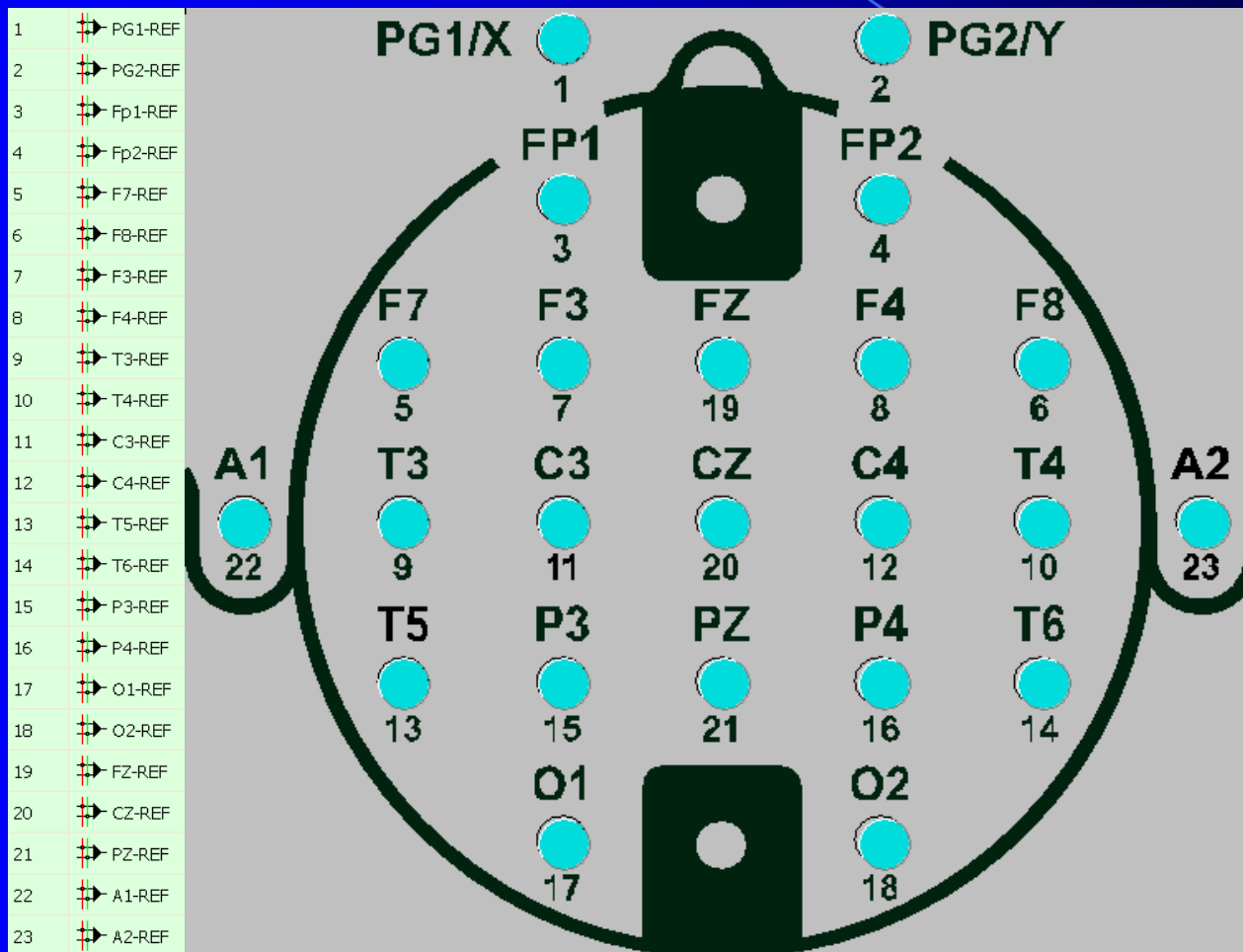




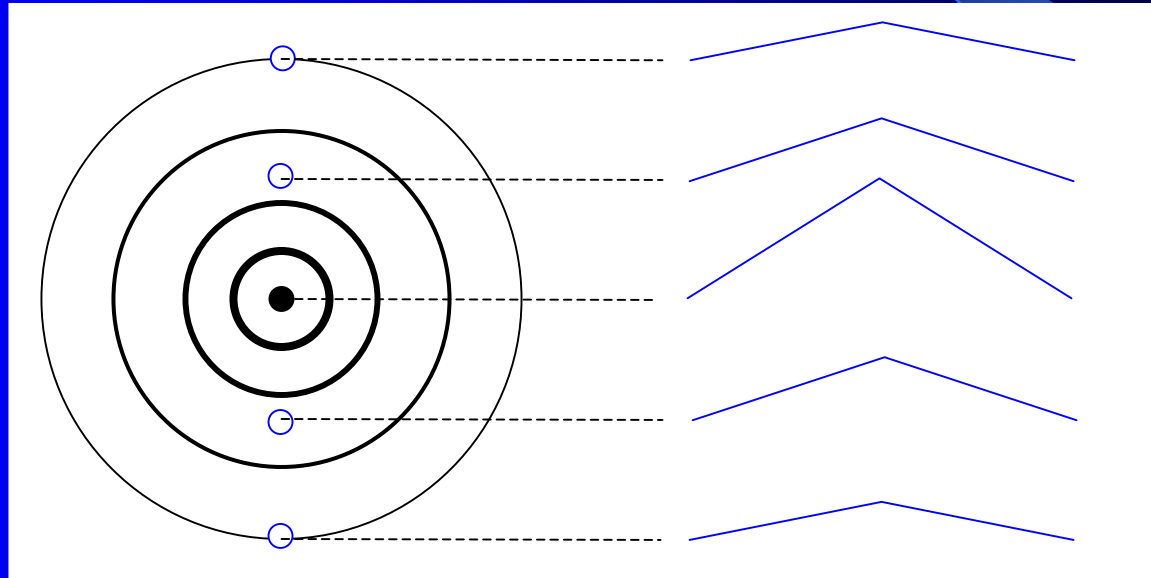
# Montaže 3



# Montaže 4

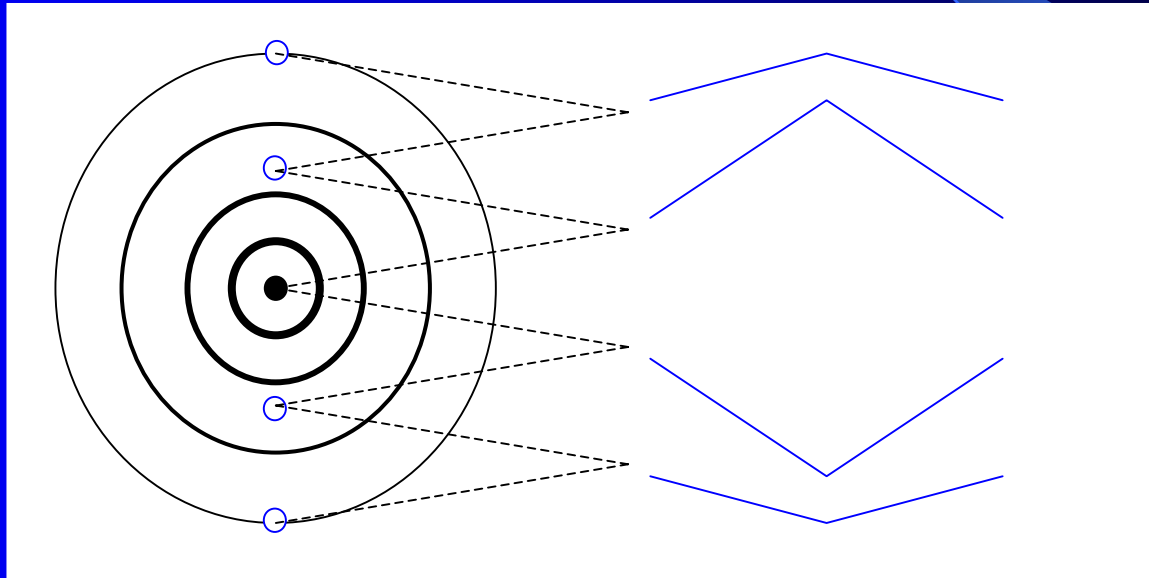


# Opozycja faz 1



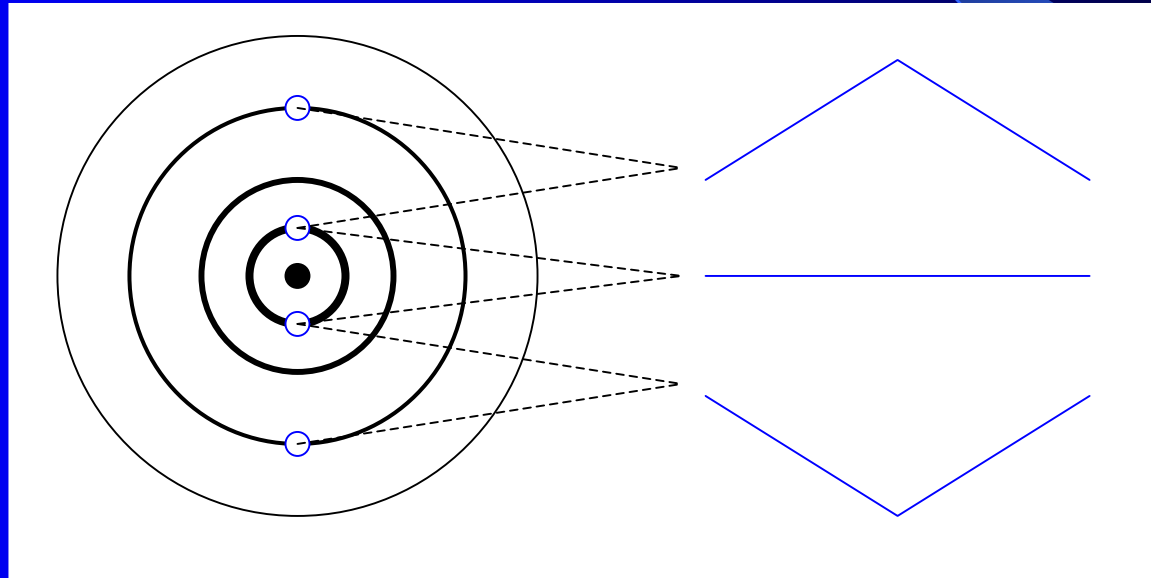
Źródło wyładowań -  
ognisko

# Opozycja faz 2



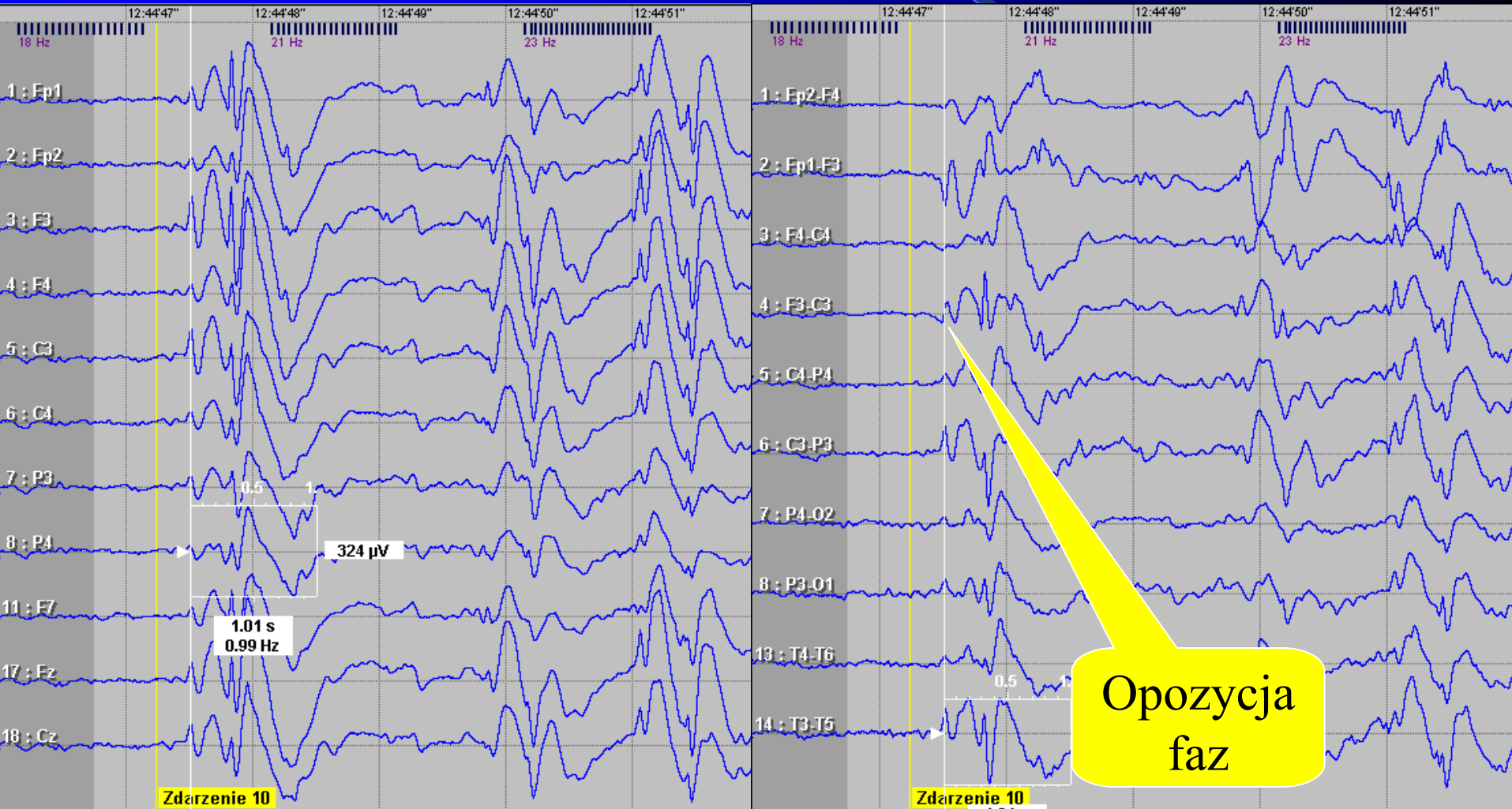
Opozycja faz w zapisie

# Opozycja faz 3

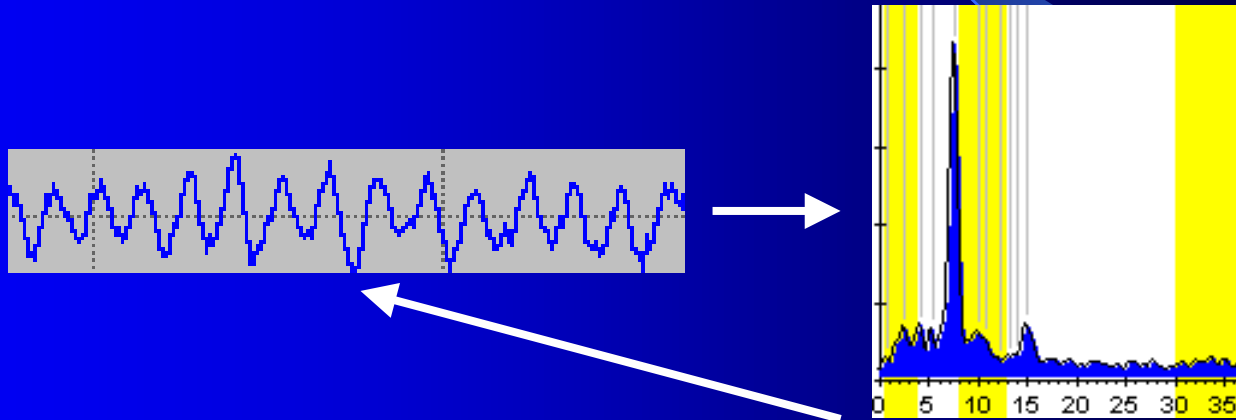


Opozycja faz w zapisie

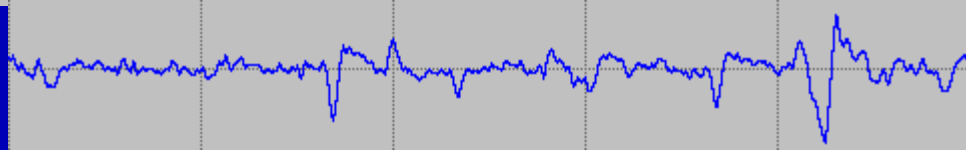
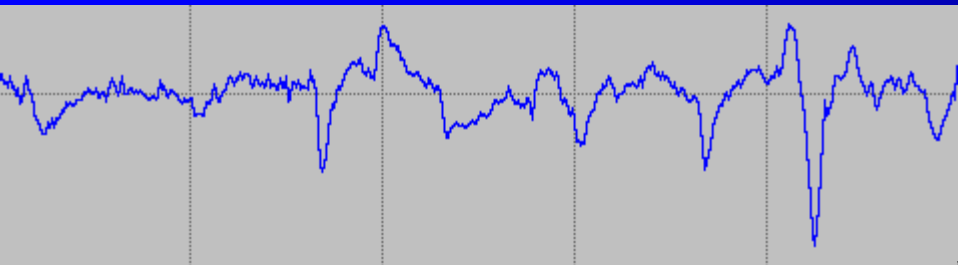
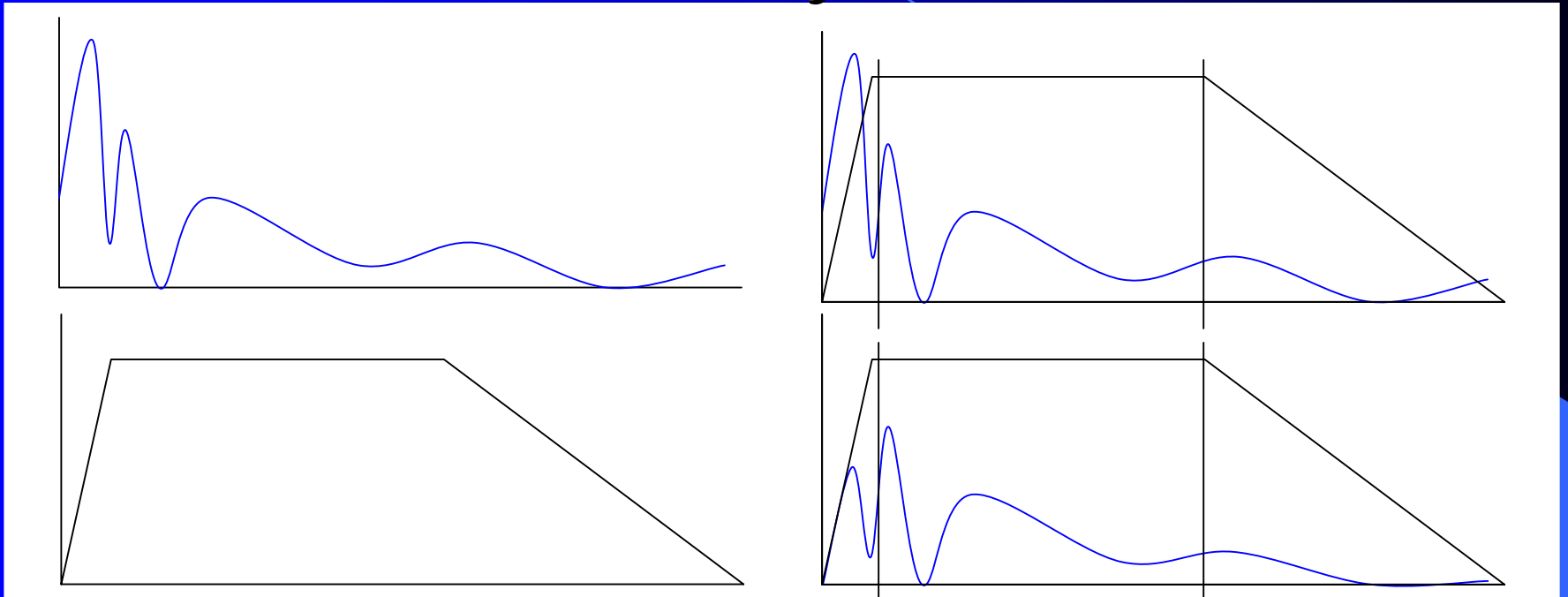
# Opozycja faz 4



# Filtry – widmo mocy sygnału

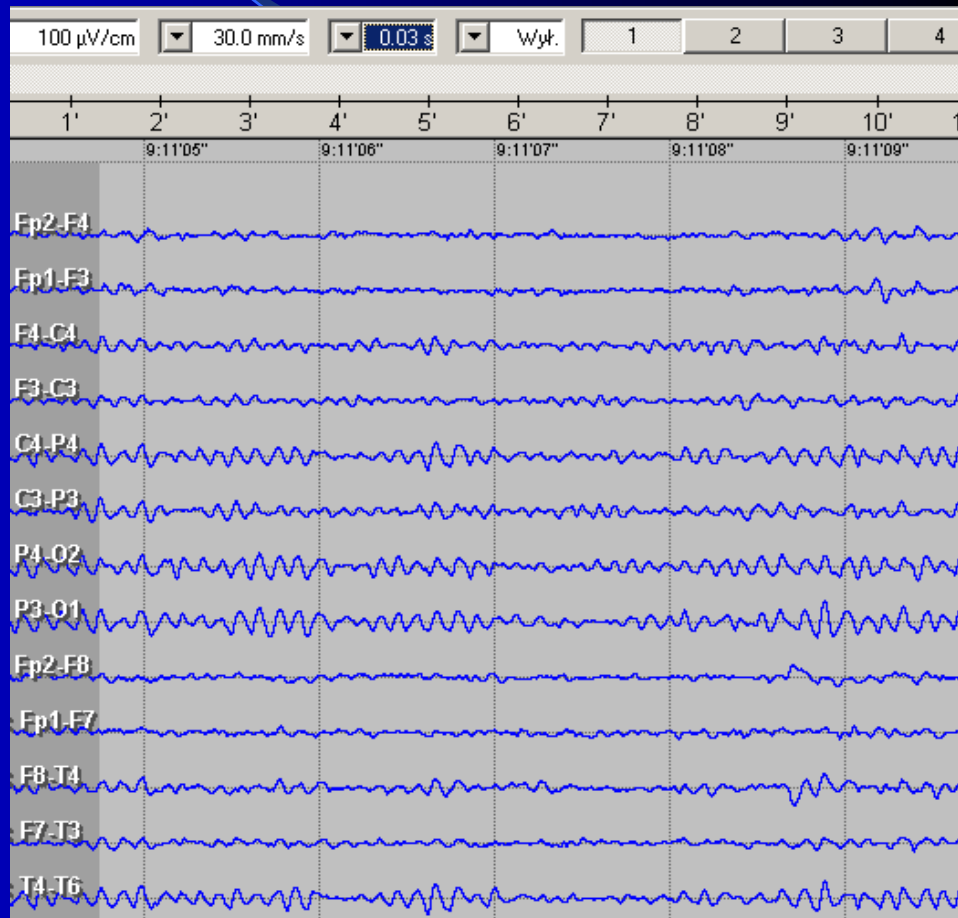
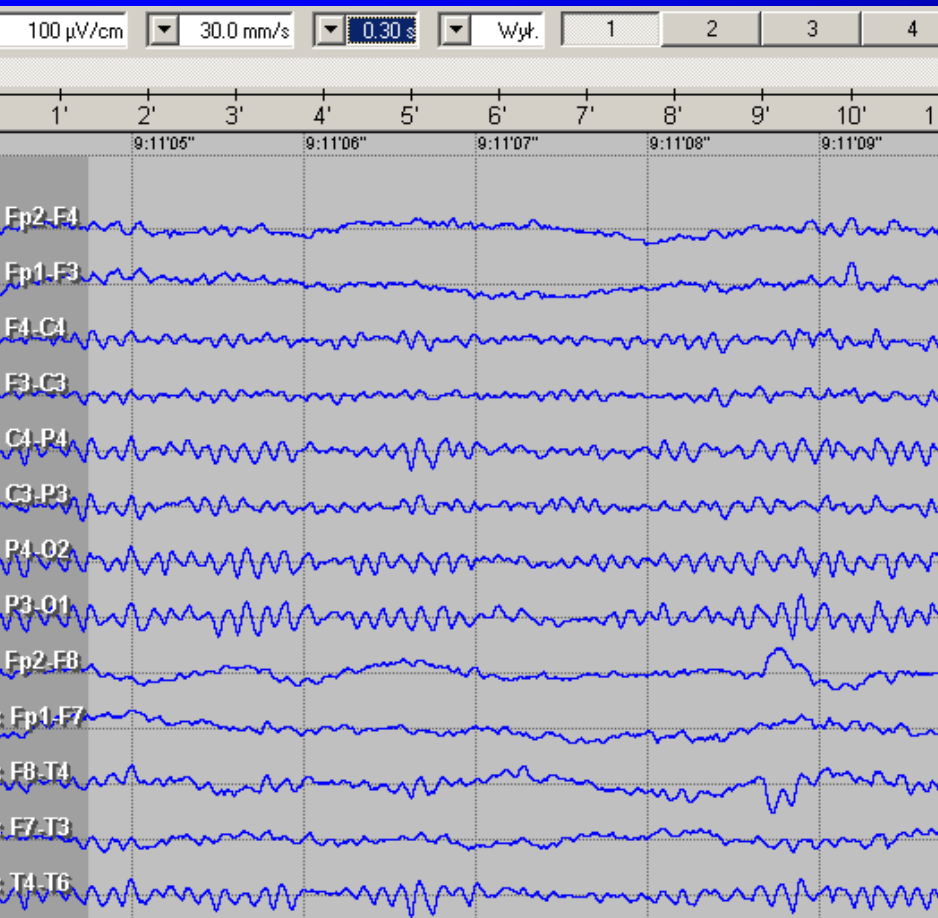


# Filtry 1

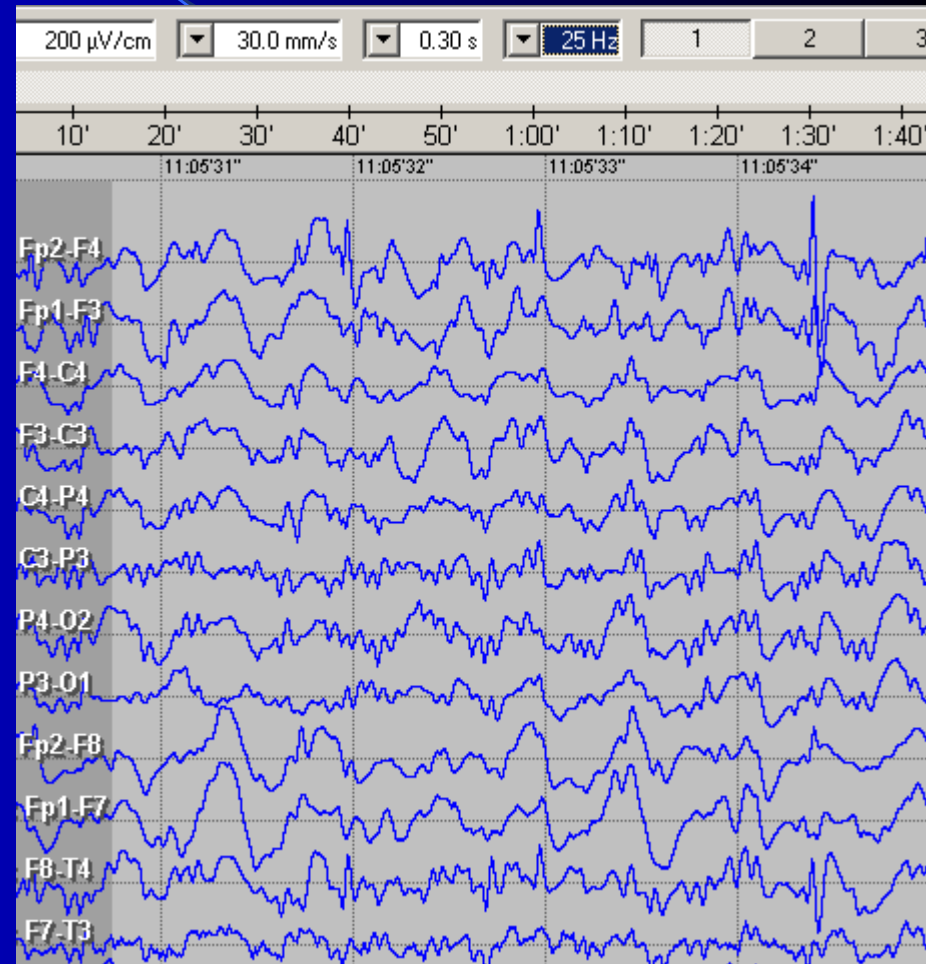
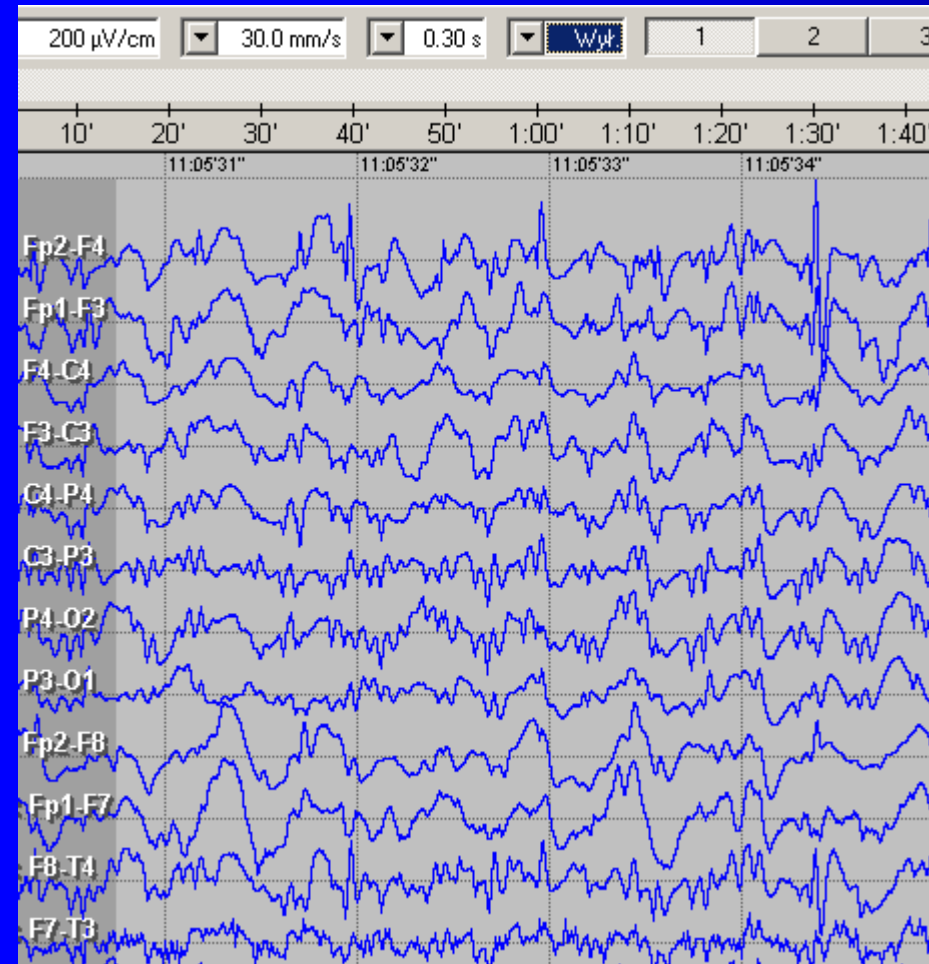




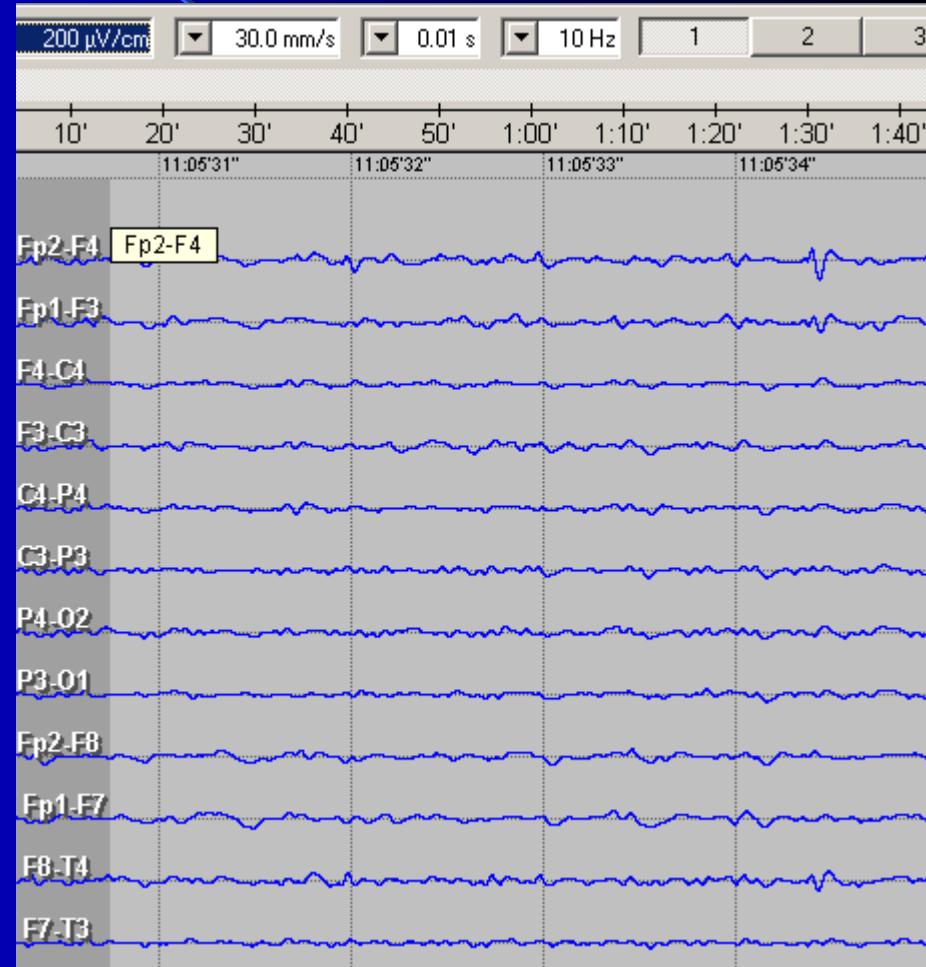
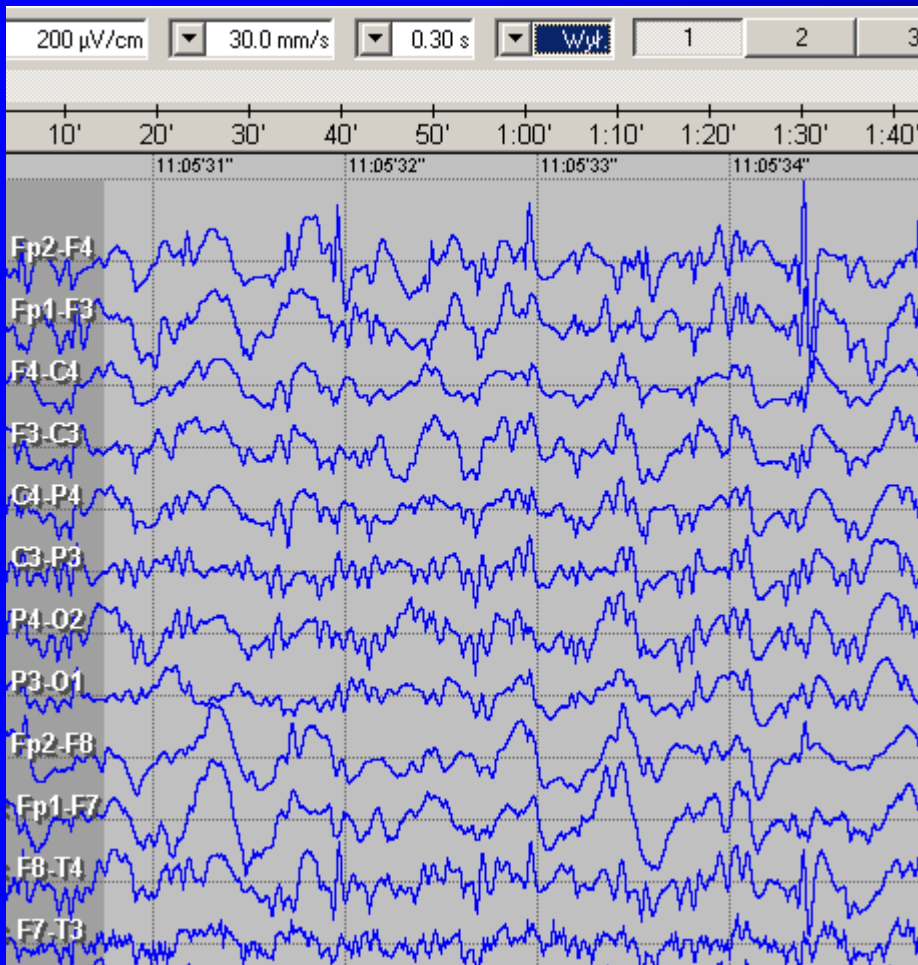
# Filtry 2



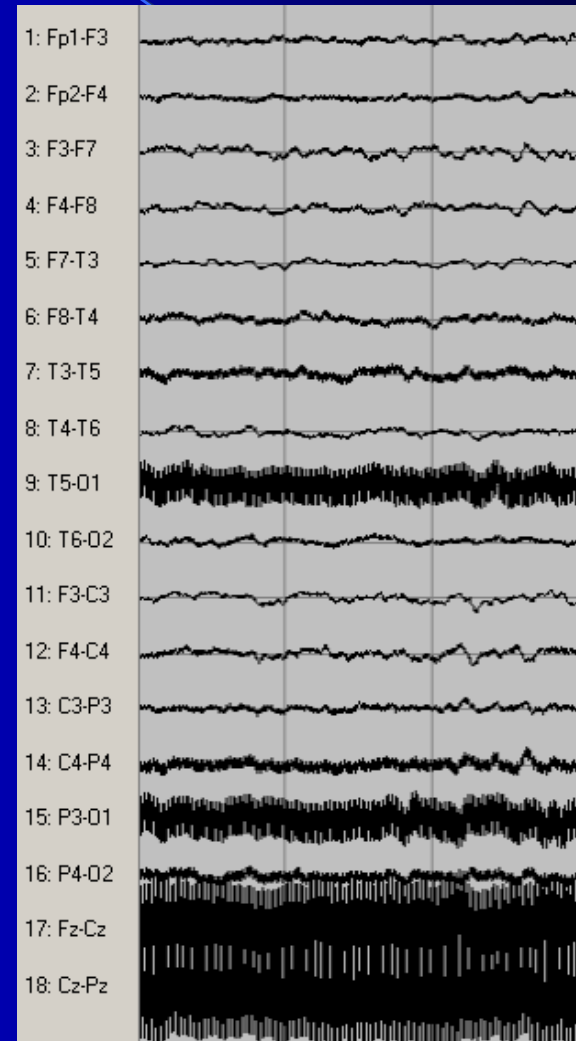
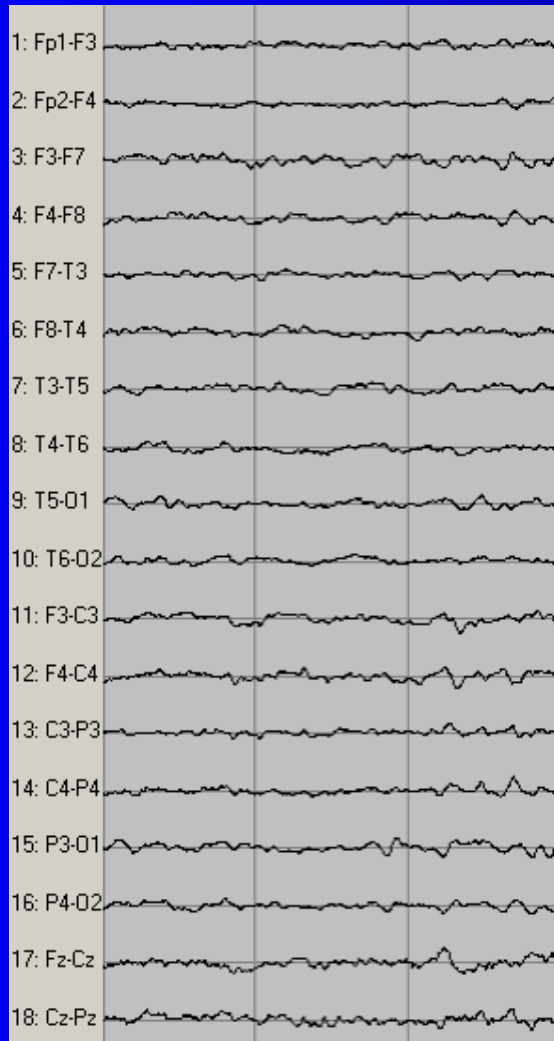
# Filtry 3



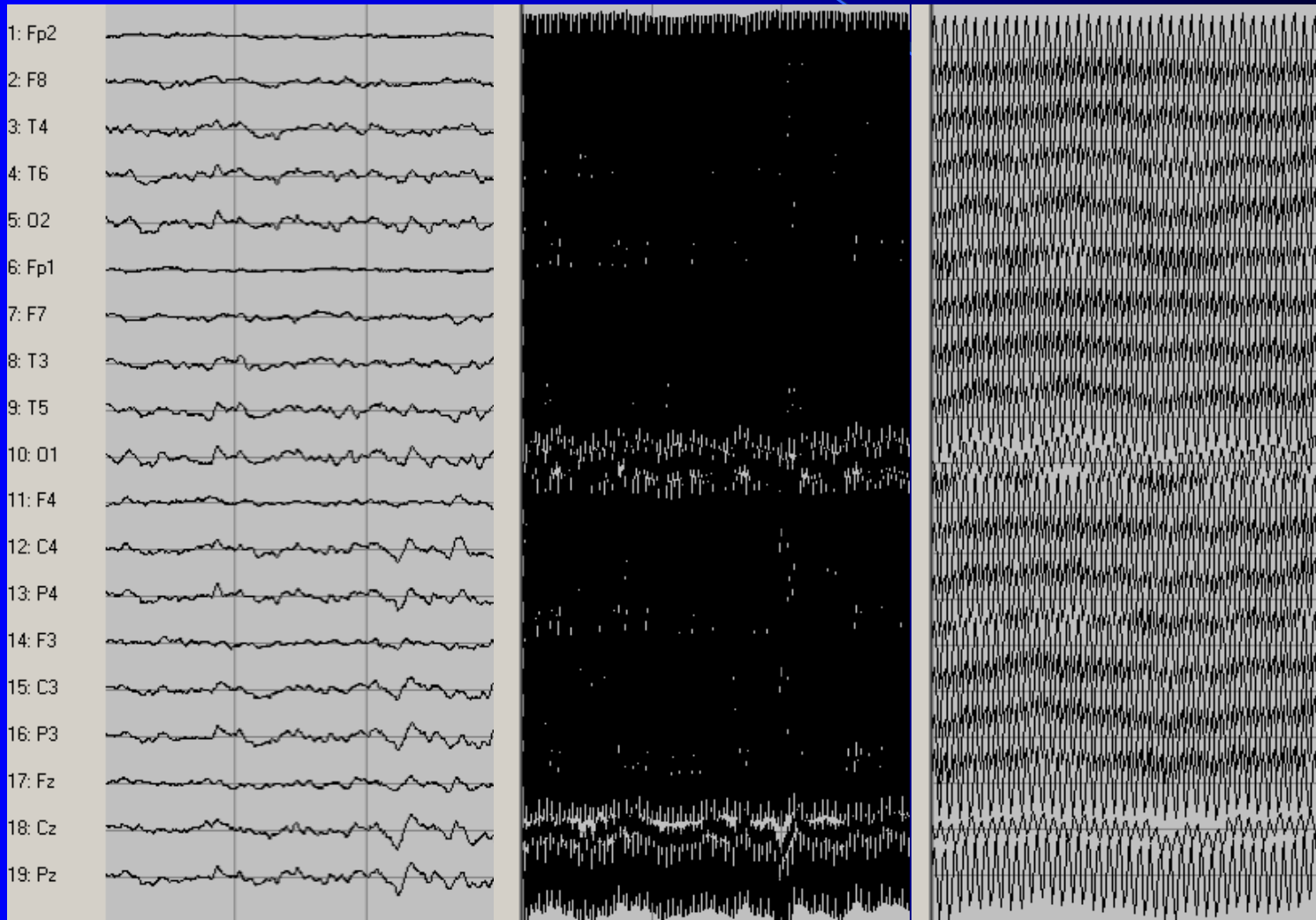
# Filtry 4



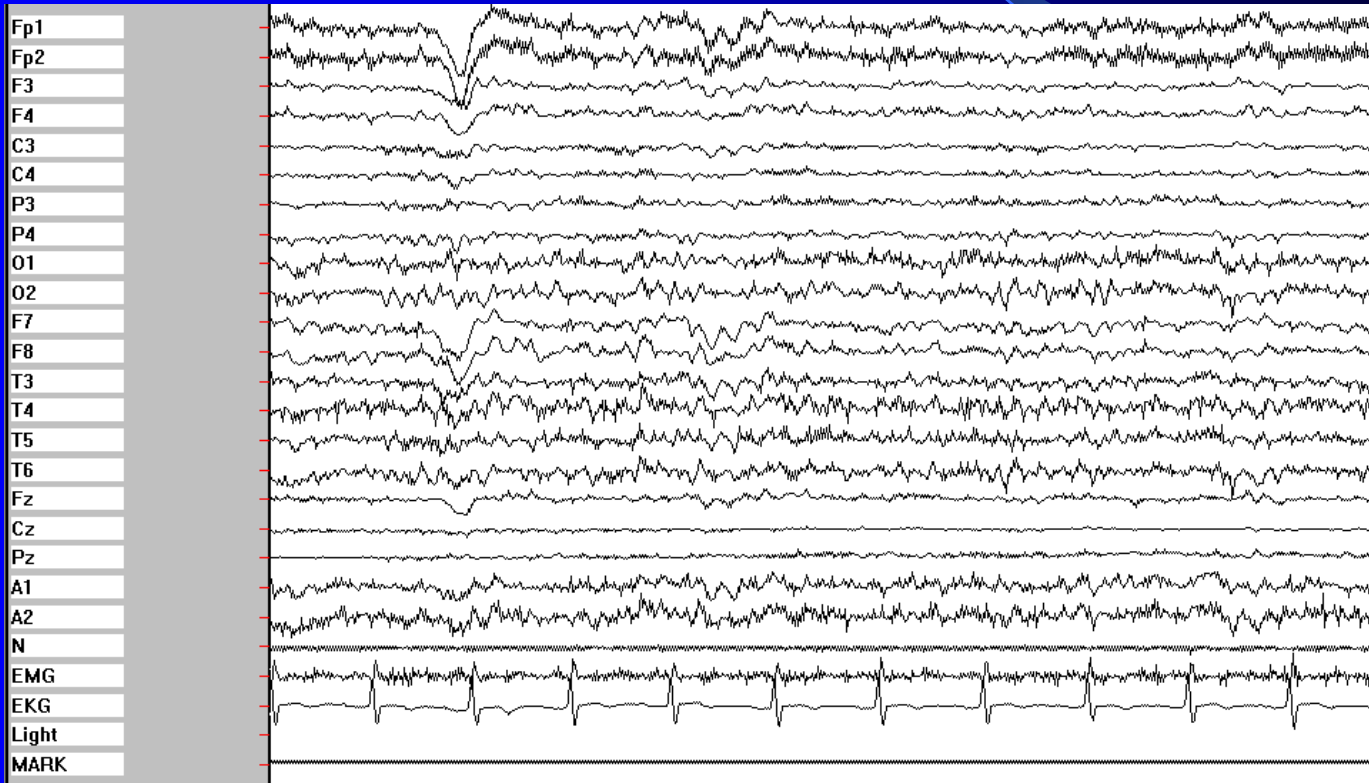
# Artefakty 1



# Artefakty 2



# Artefakty 3



# Elektrody

- Miseczkowe
- Grzybkowe
- Czepki z elektrodami
  - Srebrne, chlorkowane
  - Złote