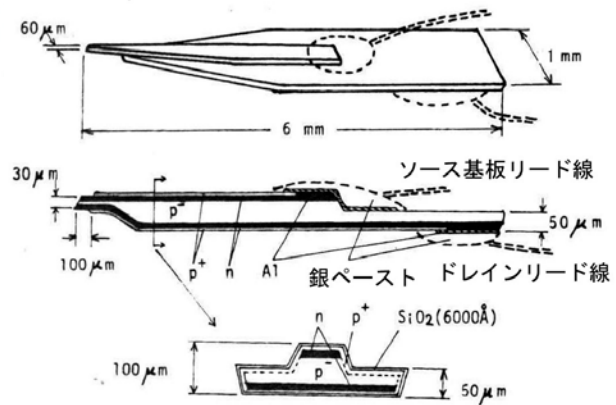
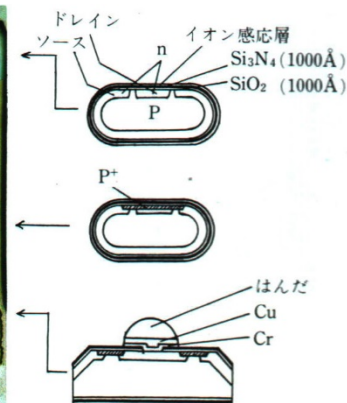
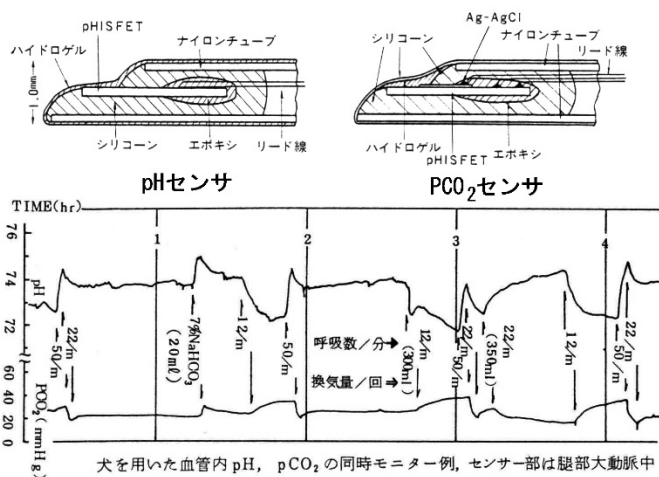


9 医用マイクロセンサ (松尾、江刺 他)

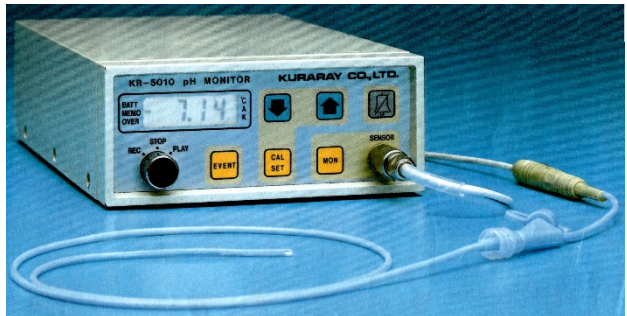


ISFET (Ion Sensitive Field Effect Transistor) と マイクロ ISFET (右)

(M.Esashi and T.Matsuo, J.of the Japan Soc. of Applied Physics, 44, Supplement (1975) 339)



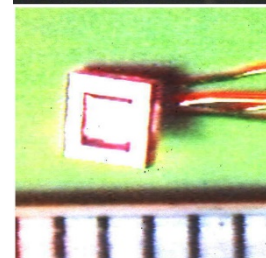
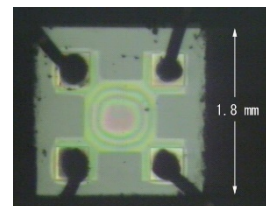
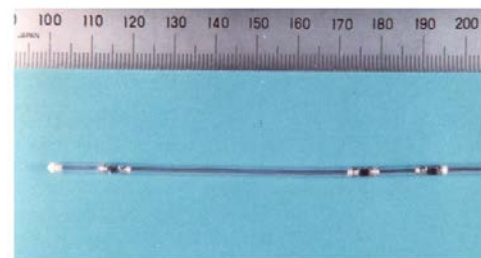
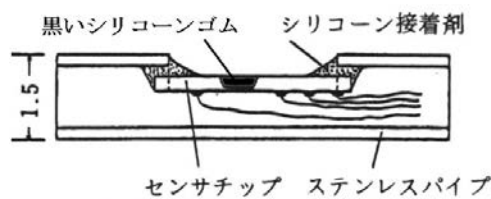
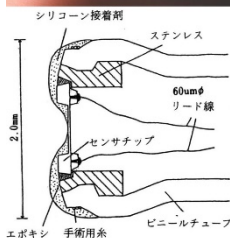
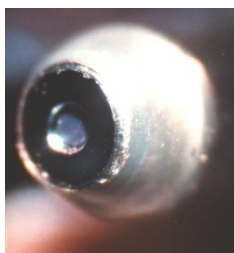
犬を用いた血管内 pH, pCO₂ の同時モニター例, センサー部は腿部大動脈中



2.4mmにISFETと比較電極を一体化

商品化された pH, CO₂ モニタ用カテーテル (1980 年 (株)クラレ、日本光電(株))

(K.Shimada, M.Yano, K.Shibatani, Y.Komoto, M.Esashi and T.Matsuo, Med.& Biol.Eng. & Comput.,18 (1980) 741)



ピエゾ抵抗型血圧センサ (カテーテル先端用、カテーテル側面用、埋込用(絶対圧))

(M.Esashi H.Komatsu, T.Matsuo, M.Takahashi, T.Takishima, K.Imabayashi and H.Ozawa, IEEE Trans. on Electron Devices,ED-29 (1982) 57)

(M.Esashi, Y.Matsumoto and S.Shoji, Sensors and Actuators, A21-A23 (1990) 1048)