AULA 14 – PTC 3435

04/10/2018

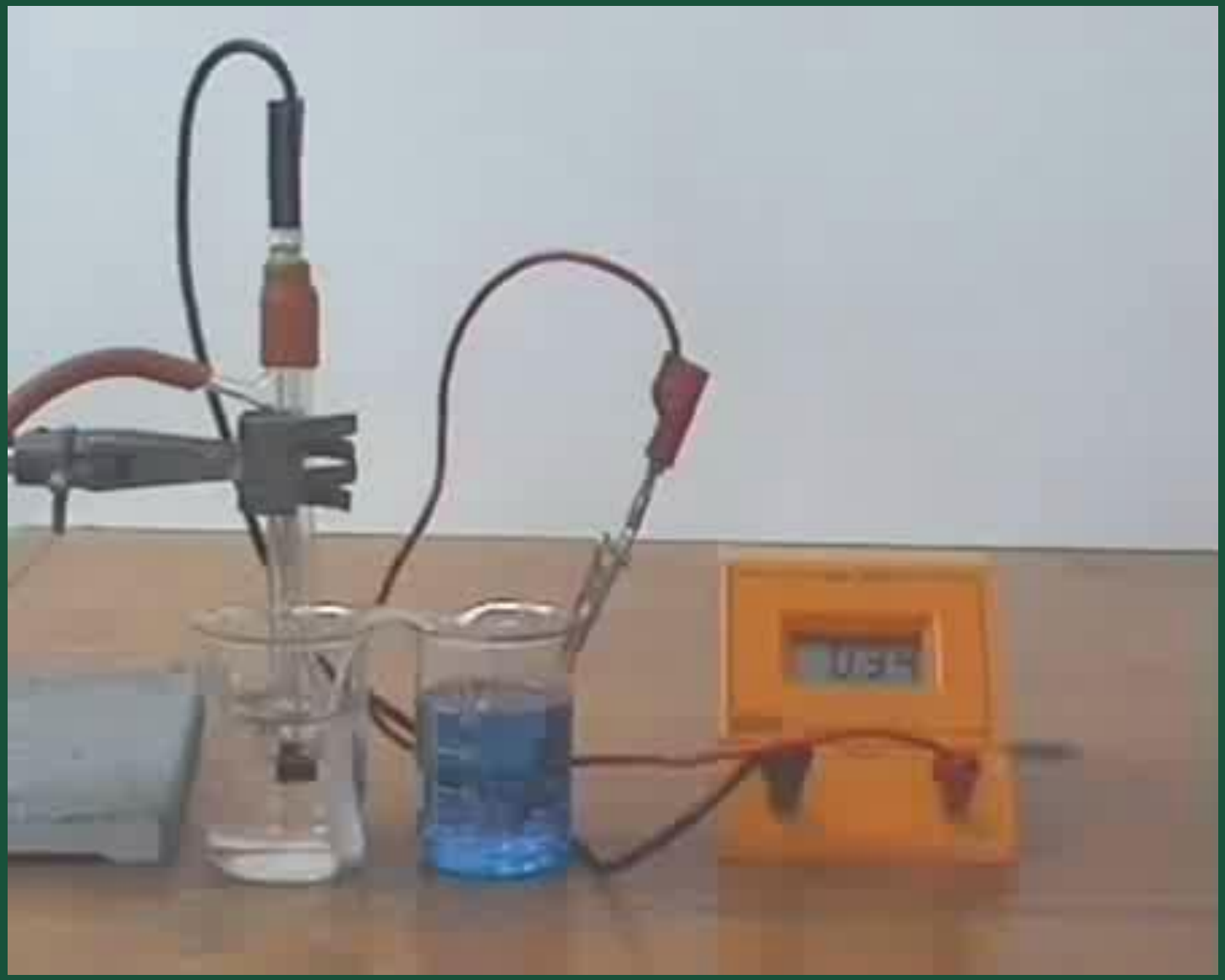
POTENCIAL DE MEIA CÉLULA

TABLE 10.2 Half-Cell Potentials of Important Metals

Primary metal and chemical reaction	Half-cell potential (V)
$Al \rightarrow Al^{3+} + 3e^-$	−1.706
$Cr \rightarrow Cr^{3+} + 3e^-$	−0.744
$Cd \rightarrow Cd^{2+} + 2e^-$	−0.401
$Zn \rightarrow Zn^{2+} + 2e^-$	−0.763
$Fe \rightarrow Fe^{2+} + 2e^-$	−0.409
$Ni \rightarrow Ni^{2+} + 2e^-$	−0.230
$Pb \rightarrow Pb^{2+} + 2e^-$	−0.126
$H_2 \rightarrow 2H^+ + 2e^-$	0.000 (standard by definition)
$Ag \rightarrow Ag^+ + e^-$	+0.799
$Au \rightarrow Au^{3+} + 3e^-$	+1.420
$Cu \rightarrow Cu^{2+} + 2e^-$	+0.340
$Ag + Cl^- \rightarrow AgCl + 2e^-$	+0.223

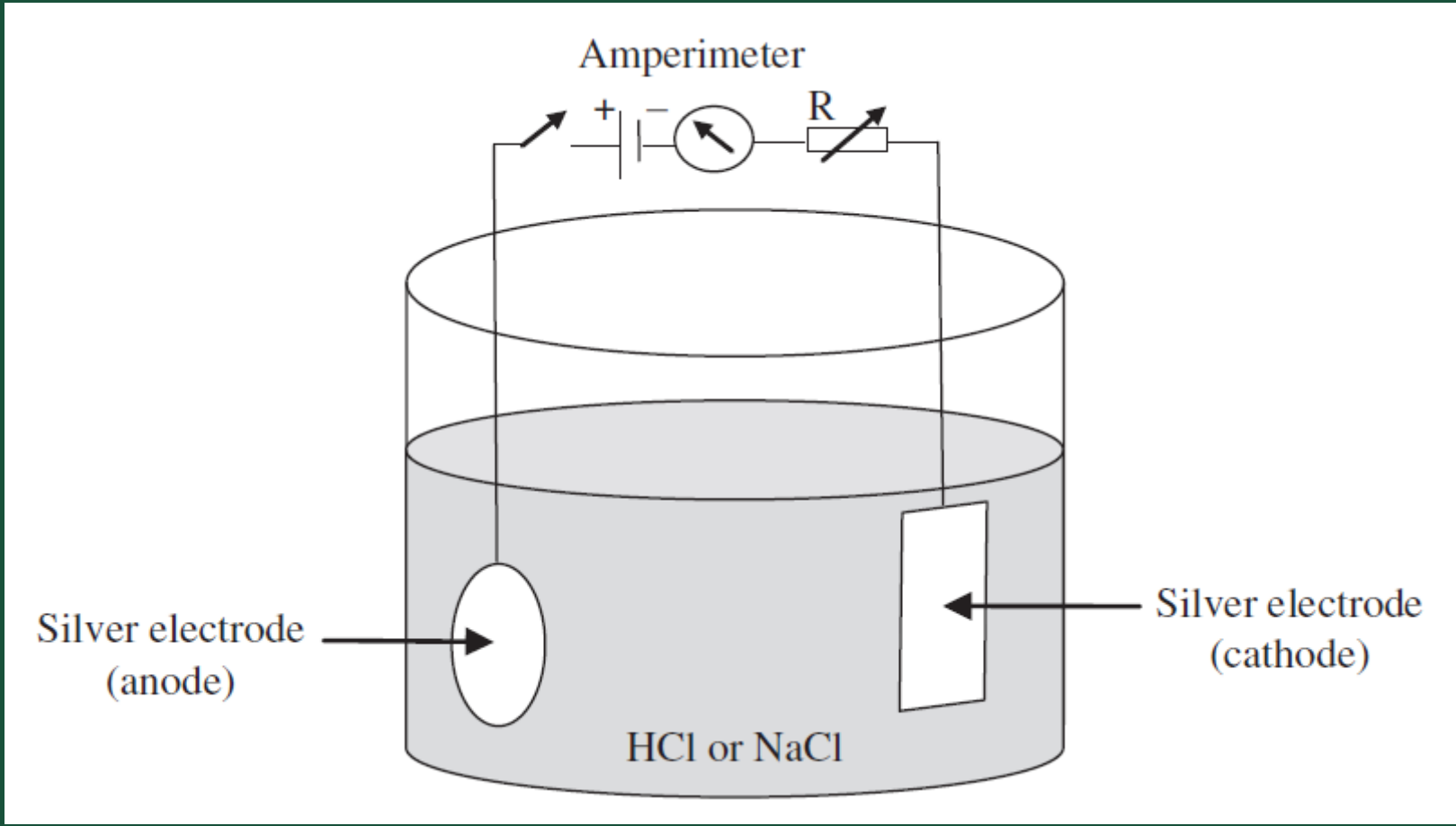
(Introduction to Biomedical Engineering, 3rd edition, Enderle & Bronzino)

POTENCIAL DE MEIA CÉLULA



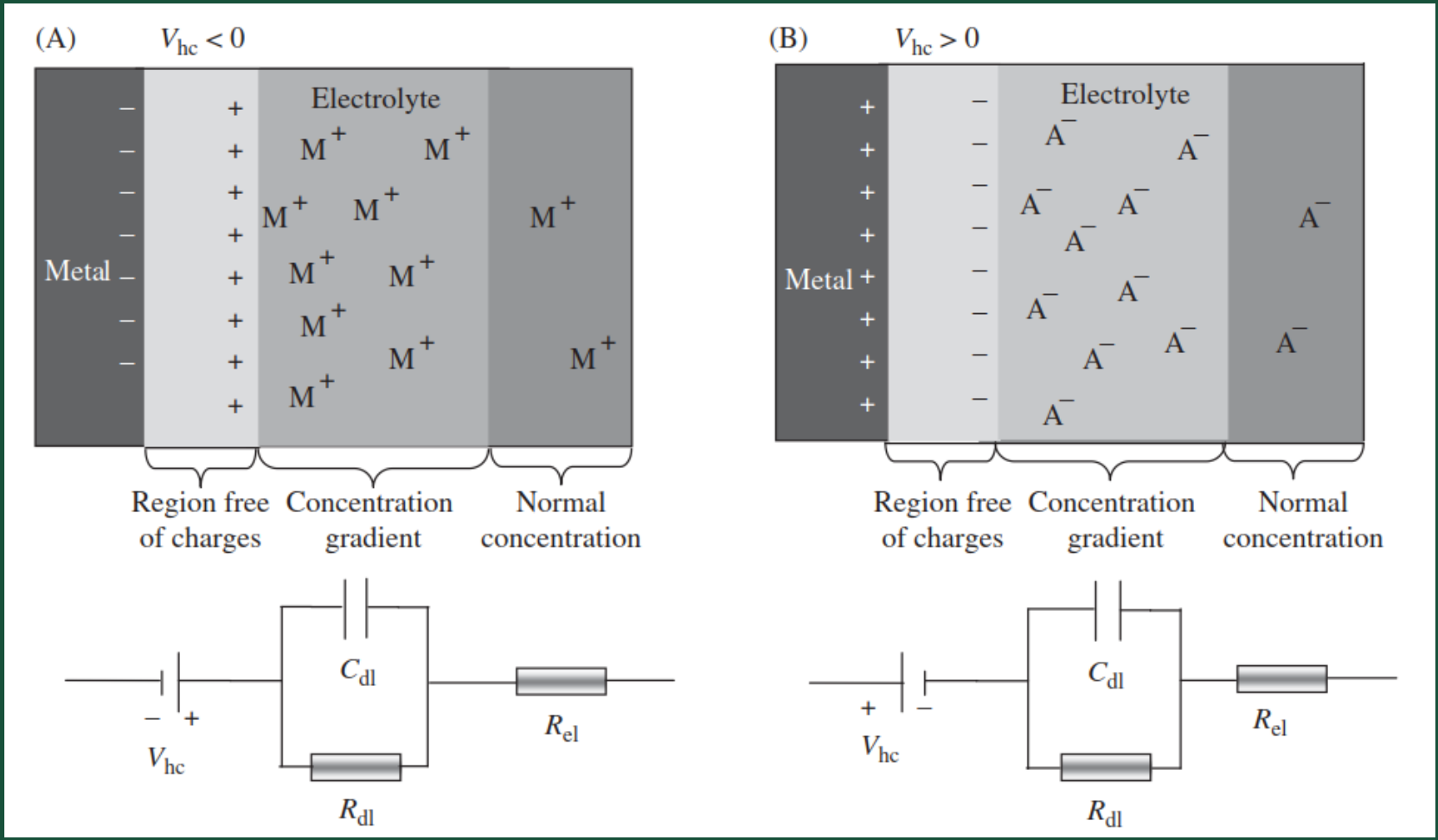
https://www.youtube.com/watch?v=V46rDZaZhmk

ELETRODO Ag-AgCl



(Principles of measurement and transduction of biomedical variables, Button 2015)

INTERFACE ELETRODO-ELETRÓLITO



(Principles of measurement and transduction of biomedical variables, Button 2015)

INTERFACE ELETRODO-ELETRÓLITO

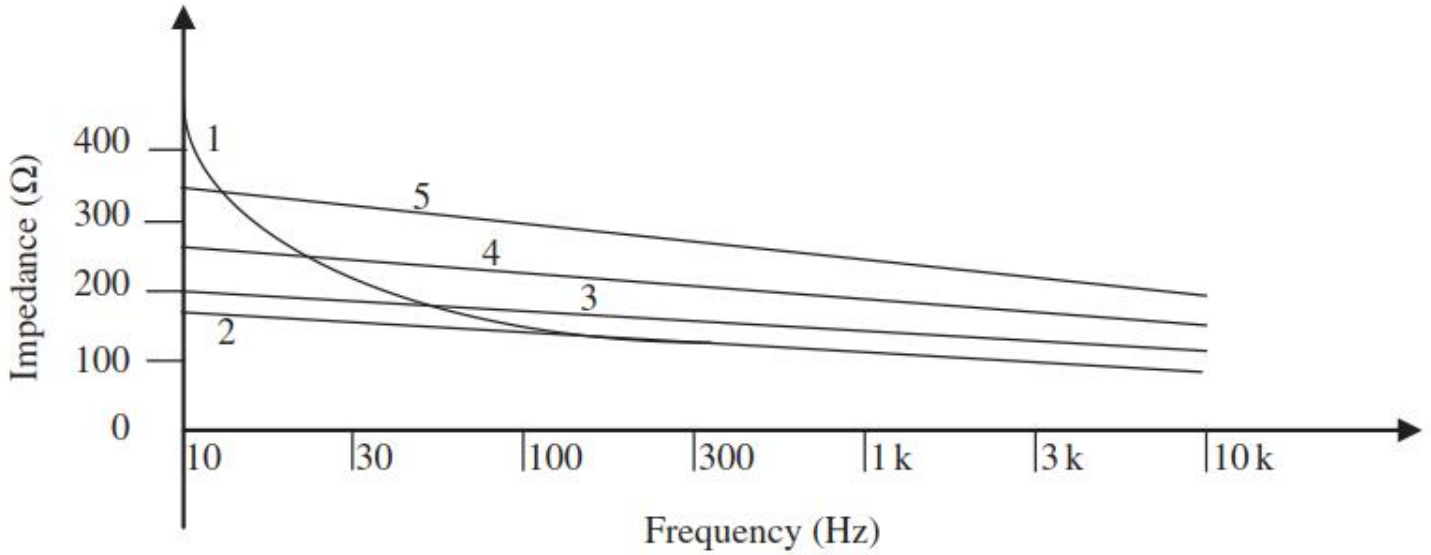
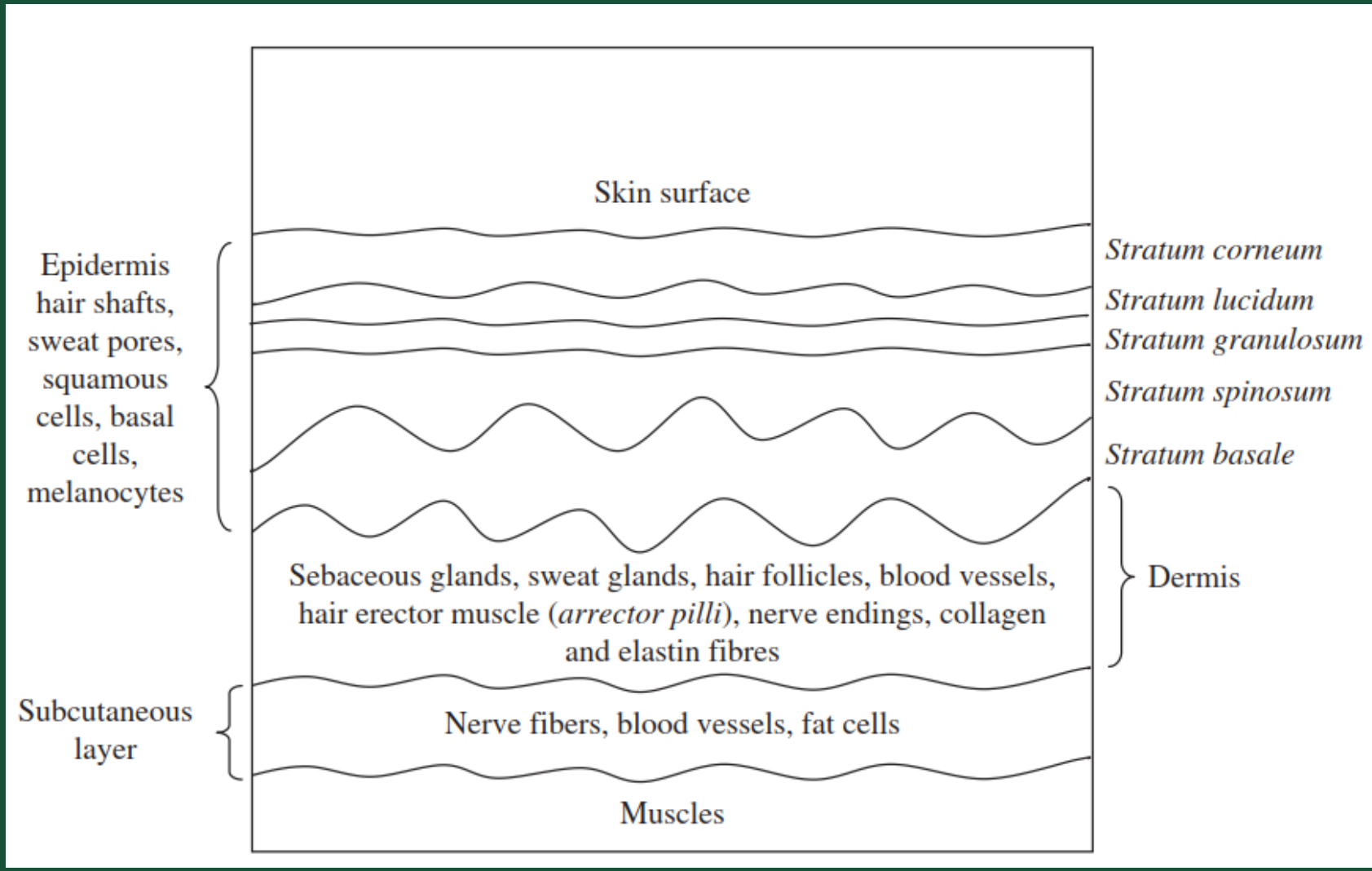


Figure 2.12 Impedance as a function of frequency for electrodes with an area of 0.25 cm^2 made of pure silver (1) and silver coated with AgCl layer deposited electrolytically with (2) 7.5 mA · s; (3) 125 mA · s; (4) 275 mA · s; and (5) 425 mA · s.

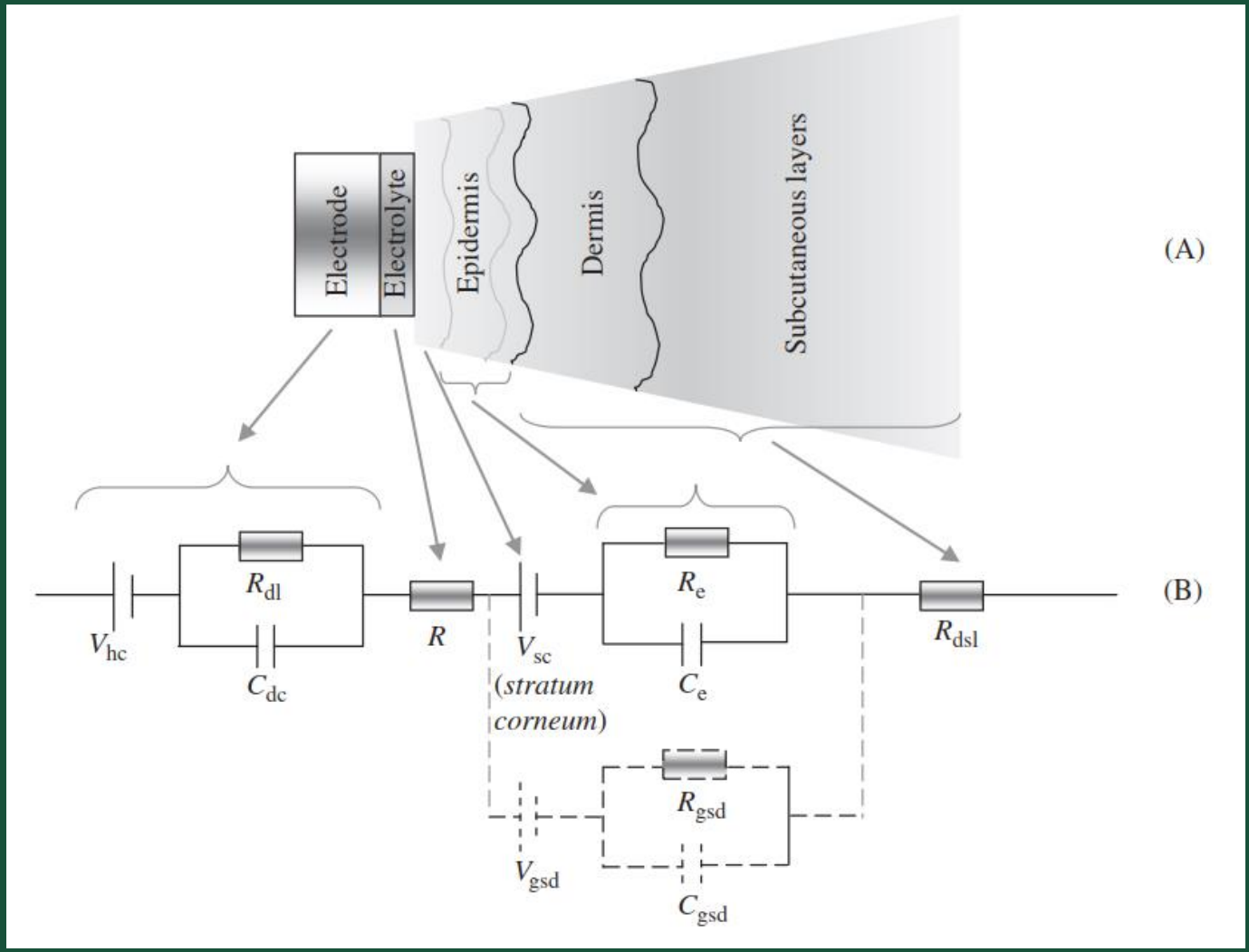
(Principles of measurement and transduction of biomedical variables, Button 2015)

PELE



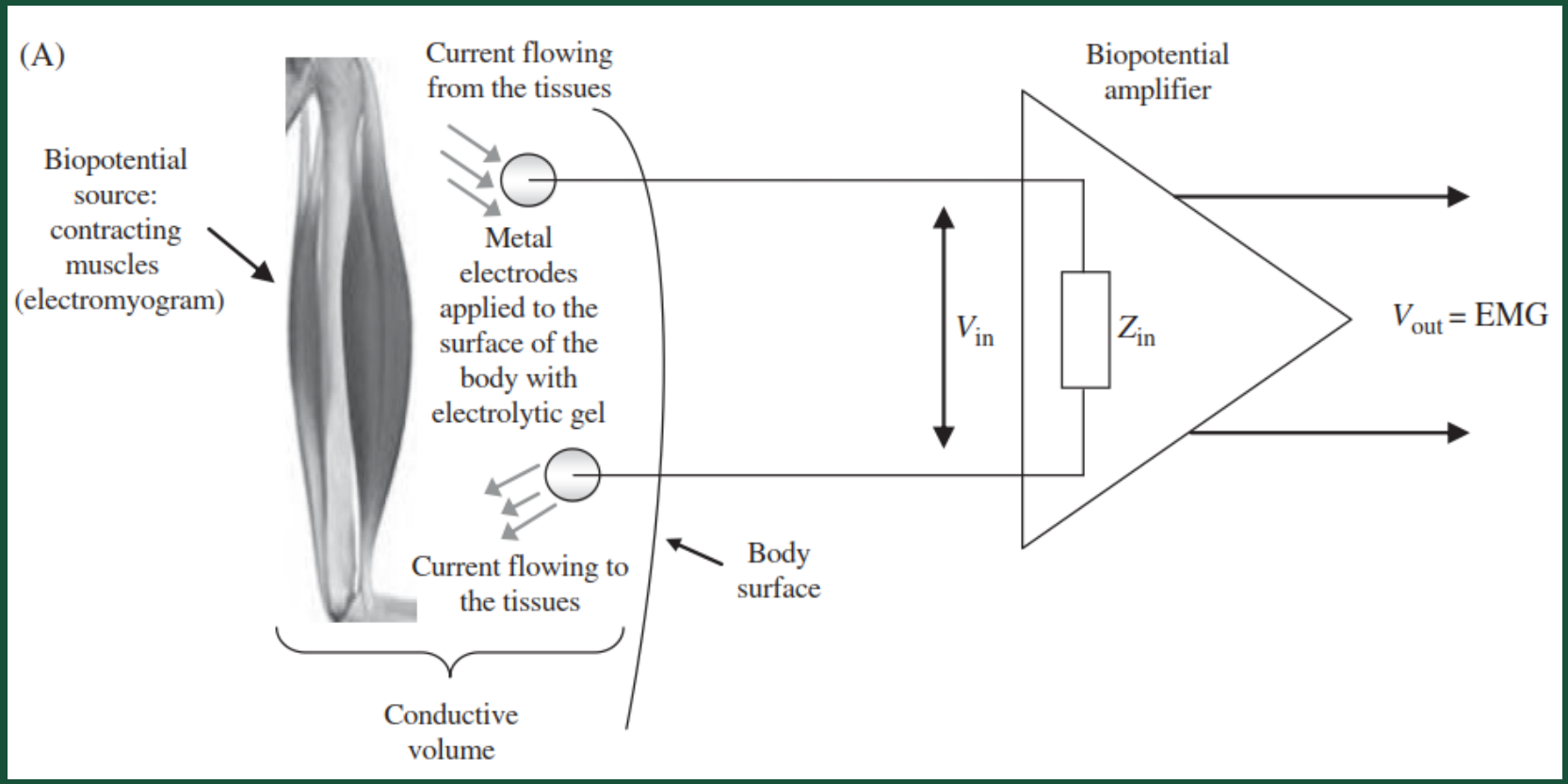
(Principles of measurement and transduction of biomedical variables, Button 2015)

INTERFACE ELETRODO-ELETRÓLITO-PELE



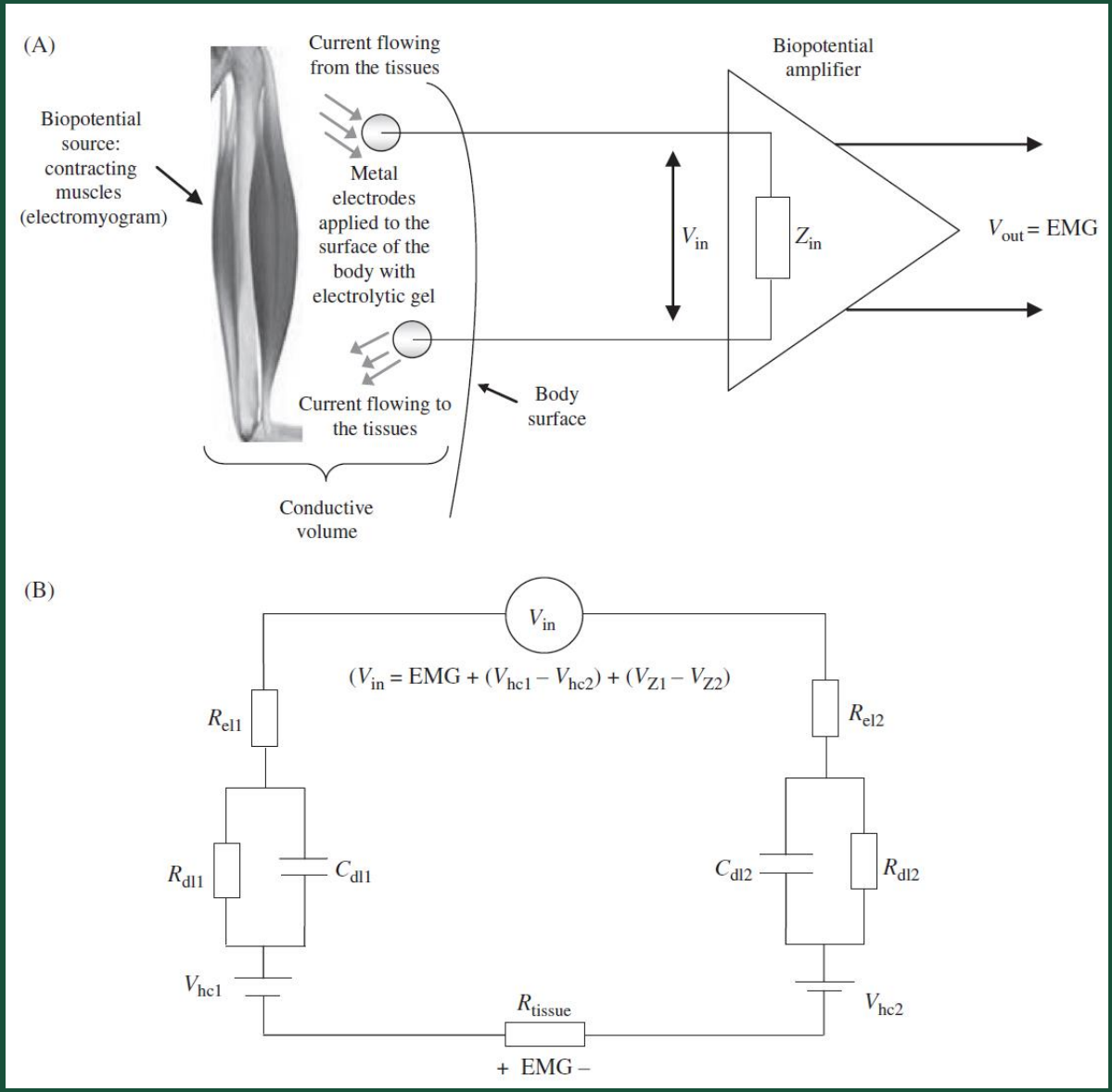
(Principles of measurement and transduction of biomedical variables, Button 2015)

ARTEFATOS DE MEDIÇÃO



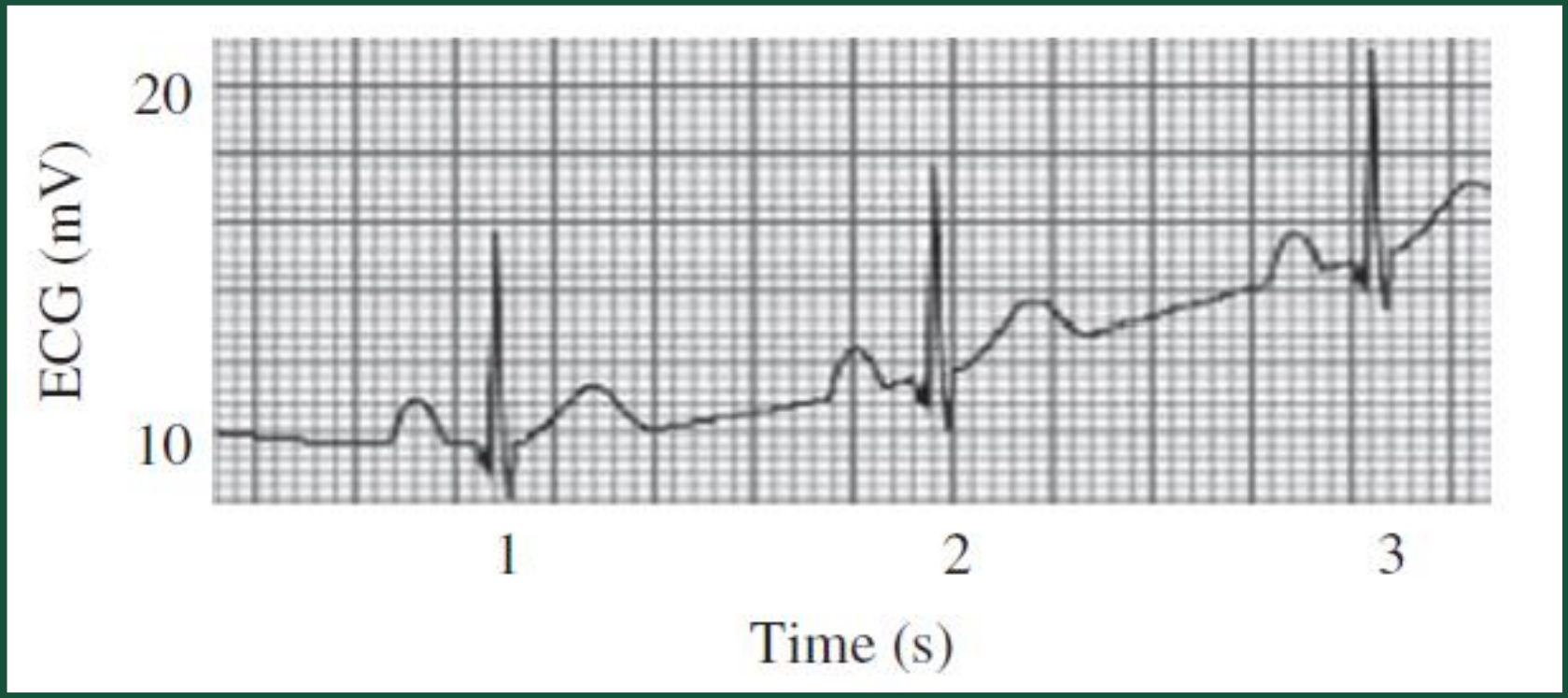
(Principles of measurement and transduction of biomedical variables, Button 2015)

ARTEFATOS DE MEDIÇÃO



(Principles of measurement and transduction of biomedical variables, Button 2015)

ARTEFATO DE MOVIMENTO



(Principles of measurement and transduction of biomedical variables, Button 2015)