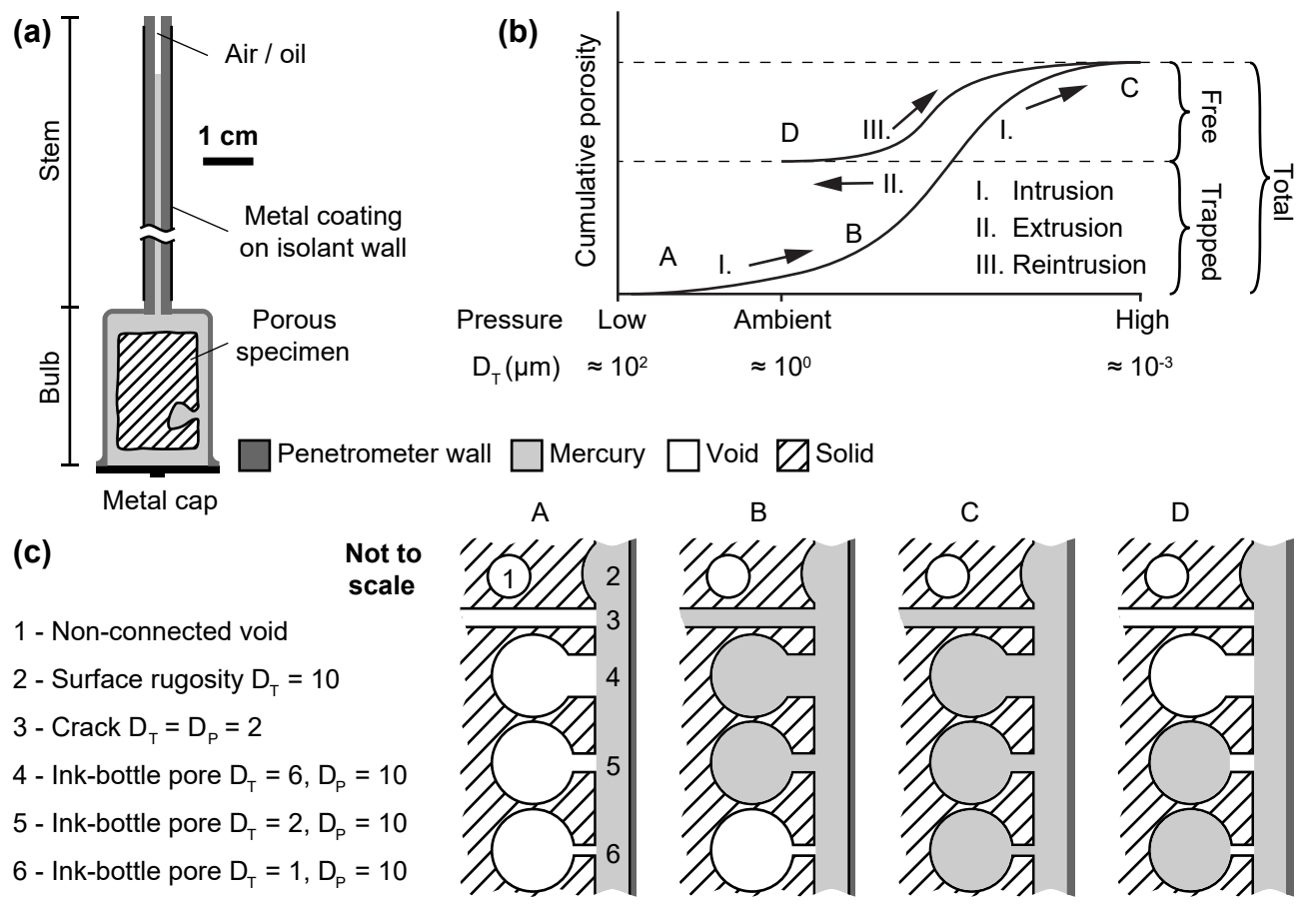
(a)
Air / oil
1 cm
Stem
Metal coating
on isolant wall
Bulb
Porous
specimen
Metal cap
Penetrometer wall
Mercury
Void
Solid
(b)
Cumulative porosity
A
B
C
D
I.
II.
III.
I. Intrusion
II. Extrusion
III. Reintrusion
Free
Trapped
Total
Pressure
Low
Ambient
High
D_T (μm)
≈ 10^2
≈ 10^0
≈ 10^-3
(c)
Not to scale
1 - Non-connected void
2 - Surface rugosity D_T = 10
3 - Crack D_T = D_P = 2
4 - Ink-bottle pore D_T = 6, D_P = 10
5 - Ink-bottle pore D_T = 2, D_P = 10
6 - Ink-bottle pore D_T = 1, D_P = 10
A
B
C
D
1
2
3
4
5
6