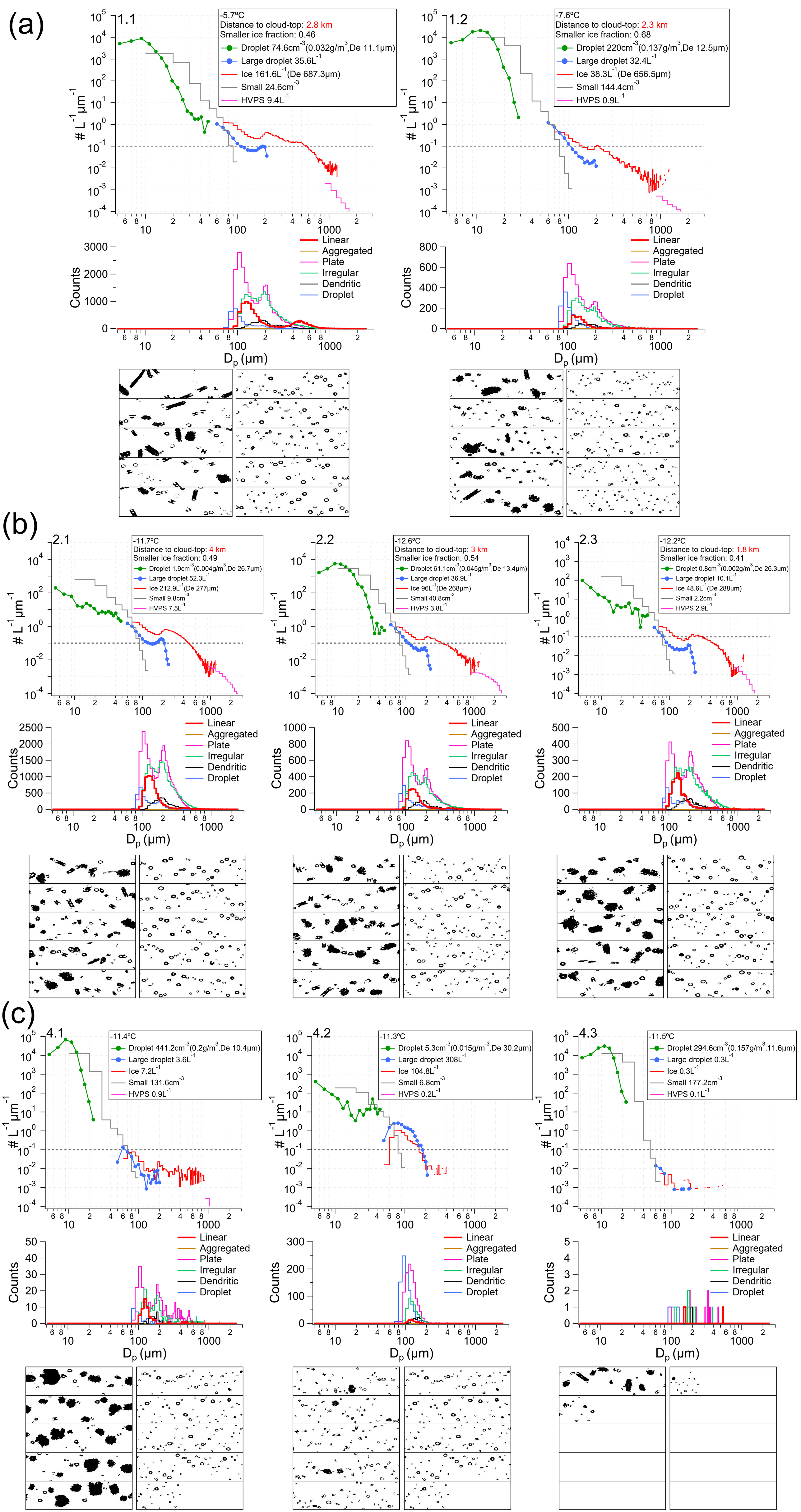
(a)
1.1
-5.7ºC
Distance to cloud-top: 2.8 km
Smaller ice fraction: 0.46
Droplet 74.6cm-3(0.032g/m3,De 11.1μm)
Large droplet 35.6L-1
Ice 161.6L-1(De 687.3μm)
Small 24.6cm-3
HVPS 9.4L-1
1.2
-7.6ºC
Distance to cloud-top: 2.3 km
Smaller ice fraction: 0.68
Droplet 220cm-3(0.137g/m3,De 12.5μm)
Large droplet 32.4L-1
Ice 38.3L-1(De 656.5μm)
Small 144.4cm-3
HVPS 0.9L-1
L-1 μm-1
Counts
Linear
Aggregated
Plate
Irregular
Dendritic
Droplet
Dp (μm)
(b)
2.1
-11.7ºC
Distance to cloud-top: 4 km
Smaller ice fraction: 0.49
Droplet 1.9cm-3(0.004g/m3,De 26.7μm)
Large droplet 52.3L-1
Ice 212.9L-1(De 277μm)
Small 9.8cm-3
HVPS 7.5L-1
2.2
-12.6ºC
Distance to cloud-top: 3 km
Smaller ice fraction: 0.54
Droplet 61.1cm-3(0.045g/m3,De 13.4μm)
Large droplet 36.9L-1
Ice 96L-1(De 268μm)
Small 40.8cm-3
HVPS 3.8L-1
2.3
-12.2ºC
Distance to cloud-top: 1.8 km
Smaller ice fraction: 0.41
Droplet 0.8cm-3(0.002g/m3,De 26.3μm)
Large droplet 10.1L-1
Ice 48.6L-1(De 288μm)
Small 2.2cm-3
HVPS 2.9L-1
(c)
4.1
-11.4ºC
Droplet 441.2cm-3(0.2g/m3,De 10.4μm)
Large droplet 3.6L-1
Ice 7.2L-1
Small 131.6cm-3
HVPS 0.9L-1
4.2
-11.3ºC
Droplet 5.3cm-3(0.015g/m-3,De 30.2μm)
Large droplet 308L-1
Ice 104.8L-1
Small 6.8cm-3
HVPS 0.2L-1
4.3
-11.5ºC
Droplet 294.6cm-3(0.157g/m3,11.6μm)
Large droplet 0.3L-1
Ice 0.3L-1
Small 177.2cm-3
HVPS 0.1L-1