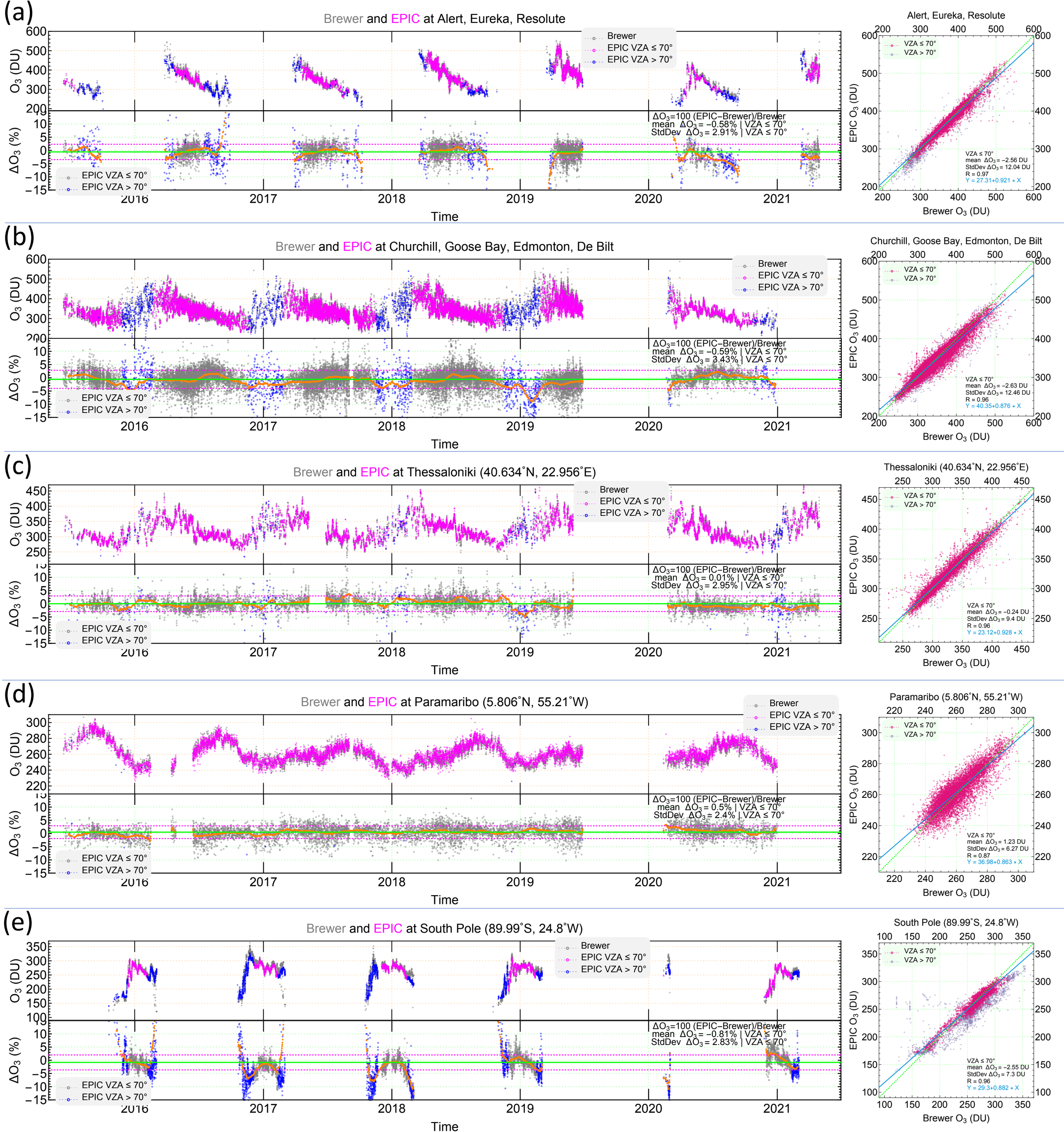
(a)
Brewer and EPIC at Alert, Eureka, Resolute
Brewer
EPIC VZA ≤ 70°
EPIC VZA > 70°
O3 (DU)
ΔO3 (%)
ΔO3=100 (EPIC−Brewer)/Brewer
mean ΔO3 = −0.58% | VZA ≤ 70°
StdDev ΔO3 = 2.91% | VZA ≤ 70°
Time
Alert, Eureka, Resolute
EPIC O3 (DU)
Brewer O3 (DU)
VZA ≤ 70°
mean ΔO3 = −2.56 DU
StdDev ΔO3 = 12.04 DU
R = 0.97
Y = 27.31+0.921 * X
(b)
Brewer and EPIC at Churchill, Goose Bay, Edmonton, De Bilt
ΔO3=100 (EPIC−Brewer)/Brewer
mean ΔO3 = −0.59% | VZA ≤ 70°
StdDev ΔO3 = 3.43% | VZA ≤ 70°
Churchill, Goose Bay, Edmonton, De Bilt
mean ΔO3 = −2.63 DU
StdDev ΔO3 = 12.46 DU
R = 0.96
Y = 40.35+0.876 * X
(c)
Brewer and EPIC at Thessaloniki (40.634˚N, 22.956˚E)
ΔO3=100 (EPIC−Brewer)/Brewer
mean ΔO3 = 0.01% | VZA ≤ 70°
StdDev ΔO3 = 2.95% | VZA ≤ 70°
Thessaloniki (40.634˚N, 22.956˚E)
mean ΔO3 = −0.24 DU
StdDev ΔO3 = 9.4 DU
R = 0.96
Y = 23.12+0.928 * X
(d)
Brewer and EPIC at Paramaribo (5.806˚N, 55.21˚W)
ΔO3=100 (EPIC−Brewer)/Brewer
mean ΔO3 = 0.5% | VZA ≤ 70°
StdDev ΔO3 = 2.4% | VZA ≤ 70°
Paramaribo (5.806˚N, 55.21˚W)
mean ΔO3 = 1.23 DU
StdDev ΔO3 = 6.27 DU
R = 0.87
Y = 36.98+0.863 * X
(e)
Brewer and EPIC at South Pole (89.99˚S, 24.8˚W)
ΔO3=100 (EPIC−Brewer)/Brewer
mean ΔO3 = −0.81% | VZA ≤ 70°
StdDev ΔO3 = 2.83% | VZA ≤ 70°
South Pole (89.99˚S, 24.8˚W)
mean ΔO3 = −2.55 DU
StdDev ΔO3 = 7.3 DU
R = 0.96
Y = 29.3+0.882 * X