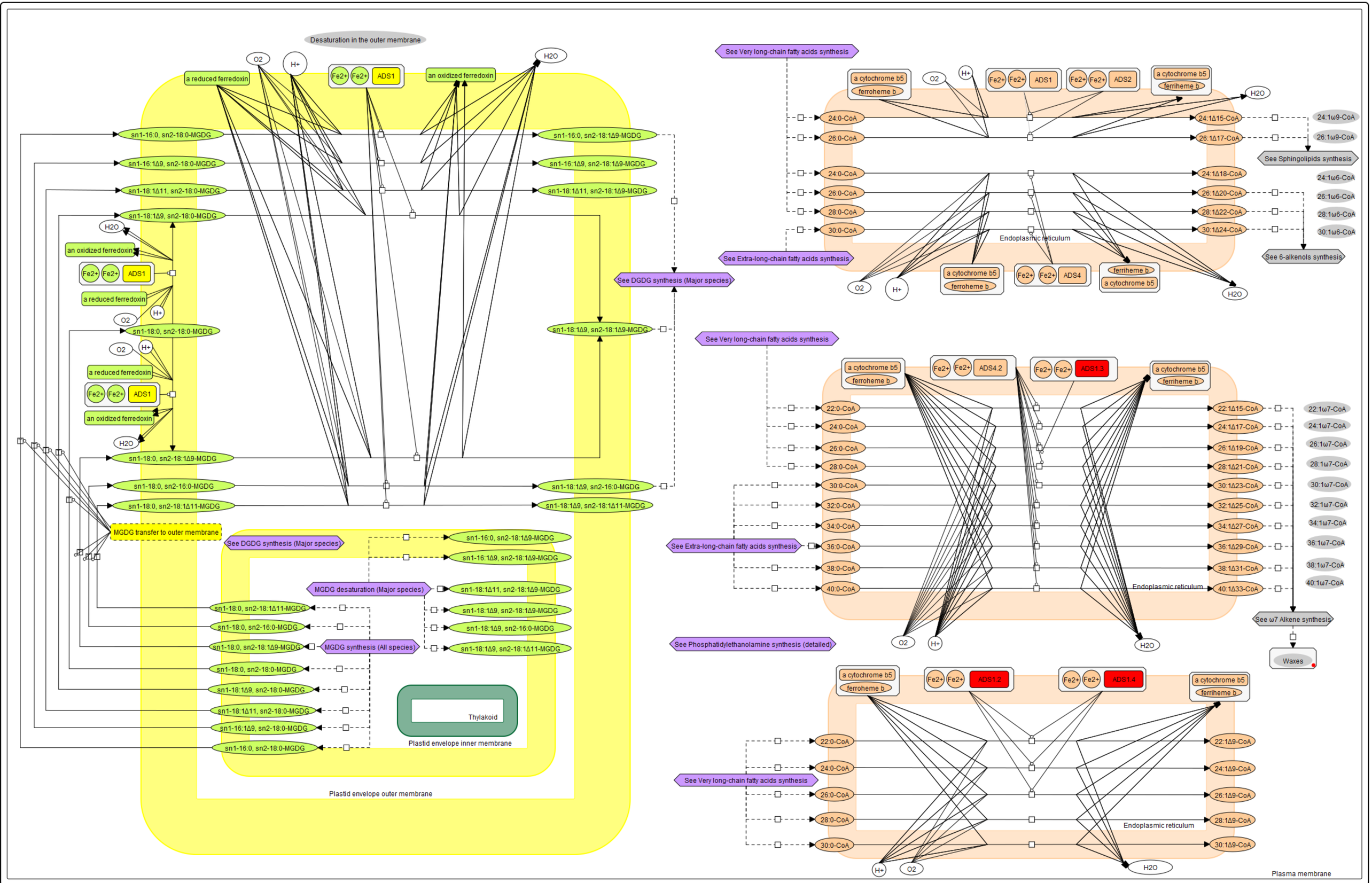
Desaturation in the outer membrane
O2
H+
H2O
a reduced ferredoxin
Fe2+ Fe2+ ADS1
an oxidized ferredoxin
sn1-16:0, sn2-18:0-MGDG
sn1-16:1Δ9, sn2-18:0-MGDG
sn1-18:1Δ11, sn2-18:0-MGDG
sn1-18:1Δ9, sn2-18:0-MGDG
sn1-18:0, sn2-18:0-MGDG
sn1-18:0, sn2-18:1Δ9-MGDG
sn1-18:0, sn2-16:0-MGDG
sn1-18:0, sn2-18:1Δ11-MGDG
sn1-16:0, sn2-18:1Δ9-MGDG
sn1-16:1Δ9, sn2-18:1Δ9-MGDG
sn1-18:1Δ11, sn2-18:1Δ9-MGDG
sn1-18:1Δ9, sn2-18:1Δ9-MGDG
sn1-18:1Δ9, sn2-16:0-MGDG
sn1-18:1Δ9, sn2-18:1Δ11-MGDG
See DGDG synthesis (Major species)
MGDG transfer to outer membrane
MGDG desaturation (Major species)
MGDG synthesis (All species)
Thylakoid
Plastid envelope inner membrane
Plastid envelope outer membrane
See Very long-chain fatty acids synthesis
See Extra-long-chain fatty acids synthesis
a cytochrome b5
ferroheme b
ferriheme b
Fe2+ Fe2+ ADS2
Fe2+ Fe2+ ADS4
24:0-CoA
26:0-CoA
28:0-CoA
30:0-CoA
24:1Δ15-CoA
26:1Δ17-CoA
24:1Δ18-CoA
26:1Δ20-CoA
28:1Δ22-CoA
30:1Δ24-CoA
Endoplasmic reticulum
See Sphingolipids synthesis
See 6-alkenols synthesis
24:1ω9-CoA
26:1ω9-CoA
24:1ω6-CoA
26:1ω6-CoA
28:1ω6-CoA
30:1ω6-CoA
Fe2+ Fe2+ ADS4.2
Fe2+ Fe2+ ADS1.3
22:0-CoA
32:0-CoA
34:0-CoA
36:0-CoA
38:0-CoA
40:0-CoA
22:1Δ15-CoA
24:1Δ17-CoA
26:1Δ19-CoA
28:1Δ21-CoA
30:1Δ23-CoA
32:1Δ25-CoA
34:1Δ27-CoA
36:1Δ29-CoA
38:1Δ31-CoA
40:1Δ33-CoA
22:1ω7-CoA
24:1ω7-CoA
26:1ω7-CoA
28:1ω7-CoA
30:1ω7-CoA
32:1ω7-CoA
34:1ω7-CoA
36:1ω7-CoA
38:1ω7-CoA
40:1ω7-CoA
See ω7 Alkene synthesis
Waxes
See Phosphatidylethanolamine synthesis (detailed)
Fe2+ Fe2+ ADS1.2
Fe2+ Fe2+ ADS1.4
22:1Δ9-CoA
24:1Δ9-CoA
26:1Δ9-CoA
28:1Δ9-CoA
30:1Δ9-CoA
Plasma membrane