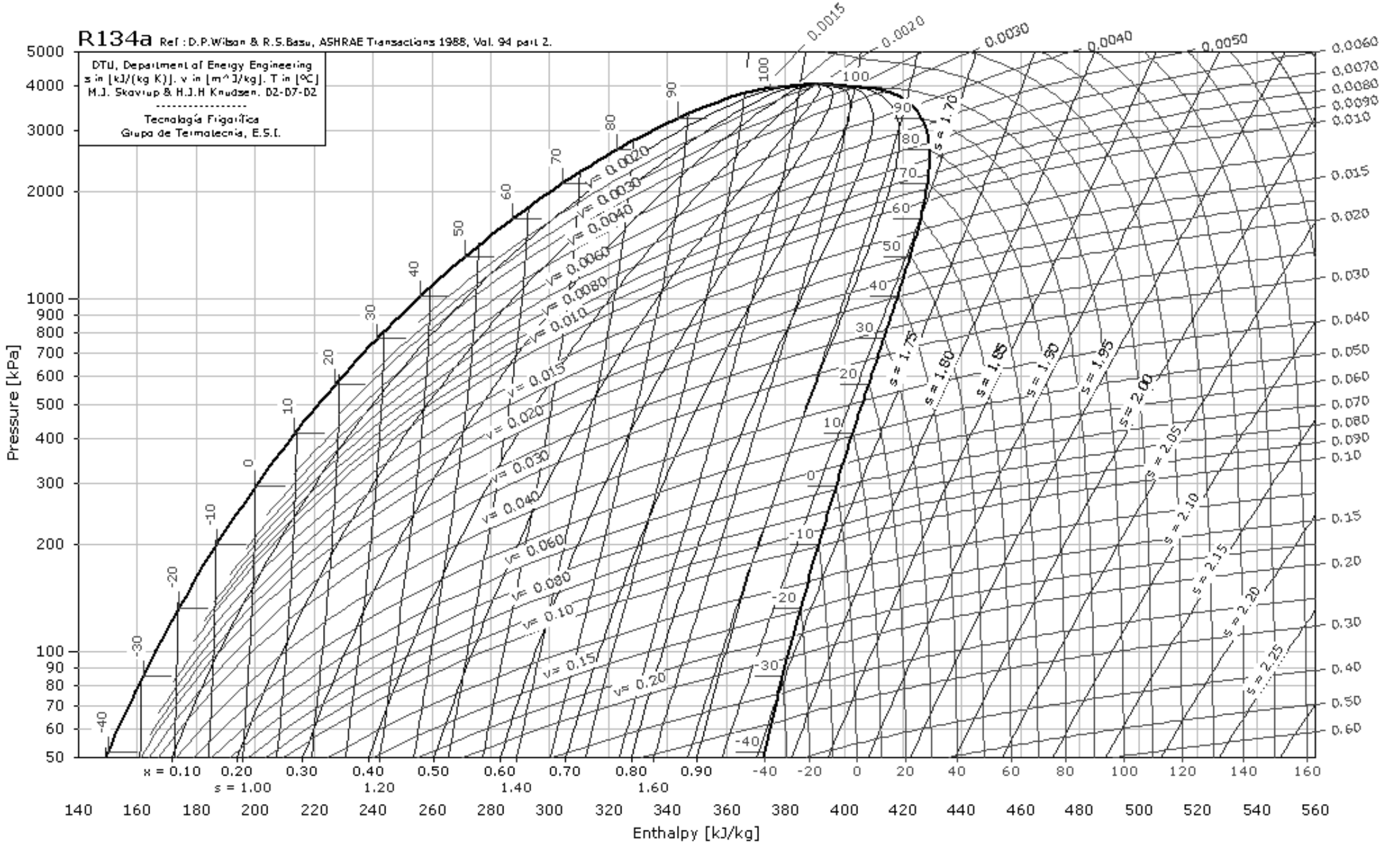
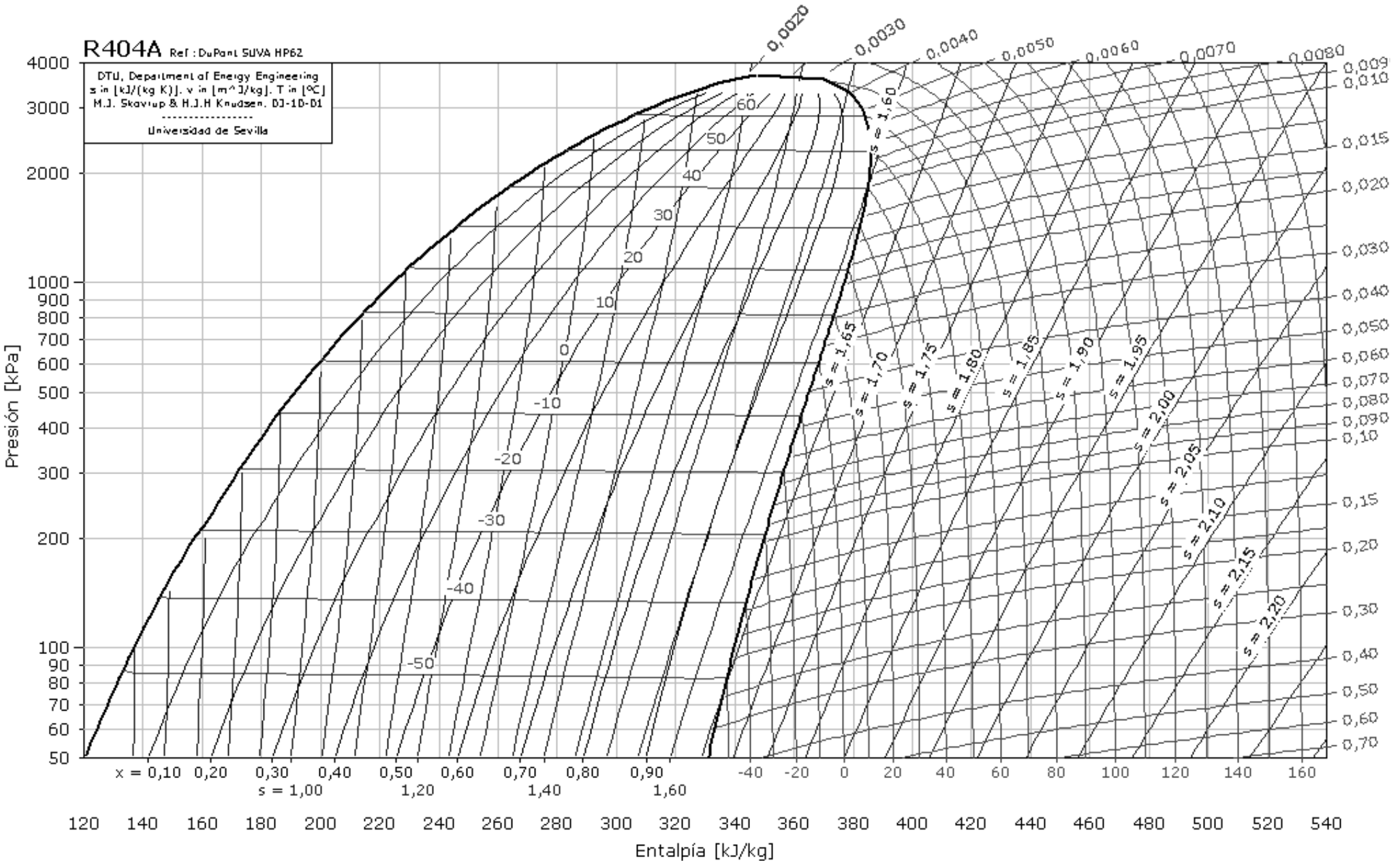
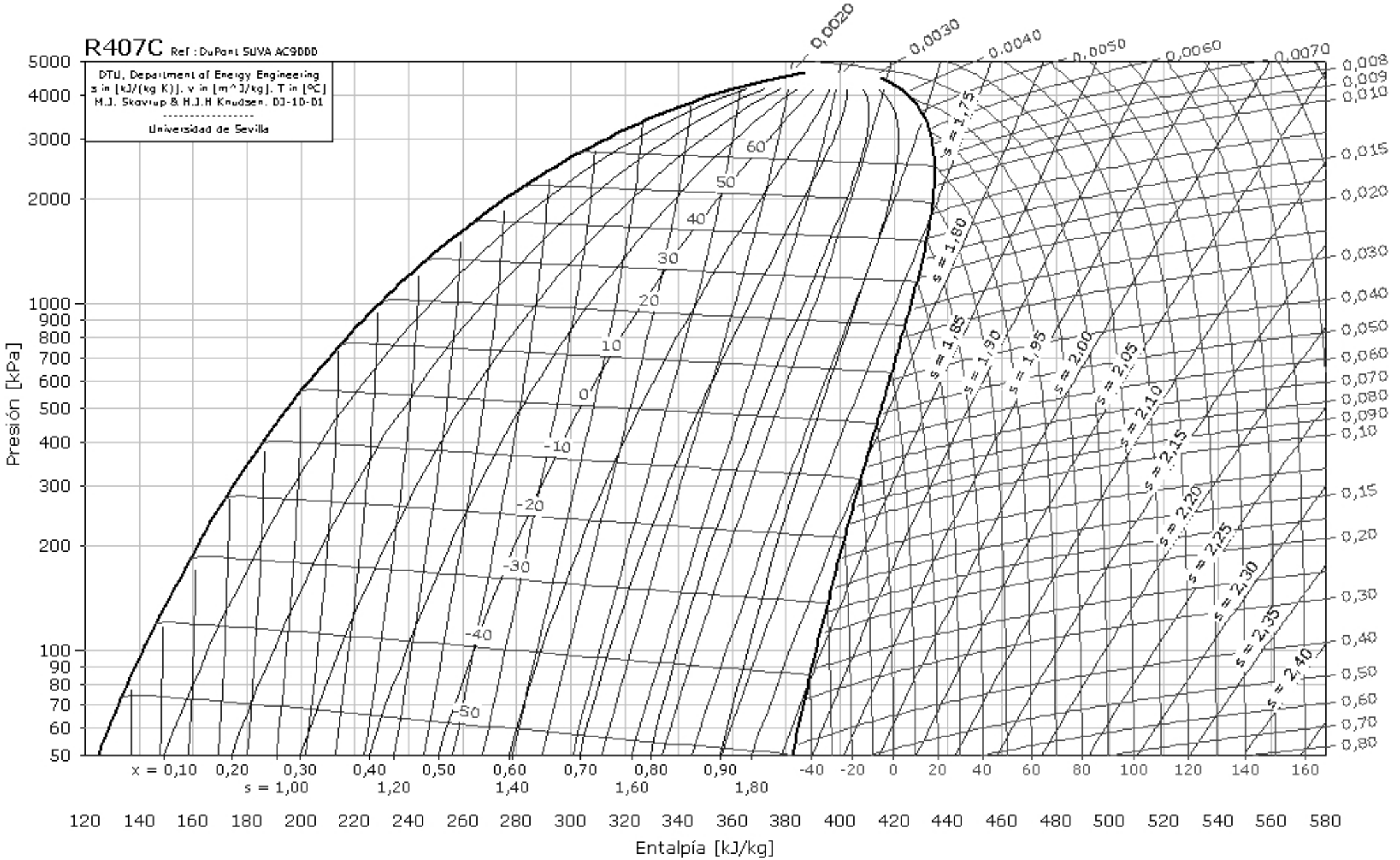
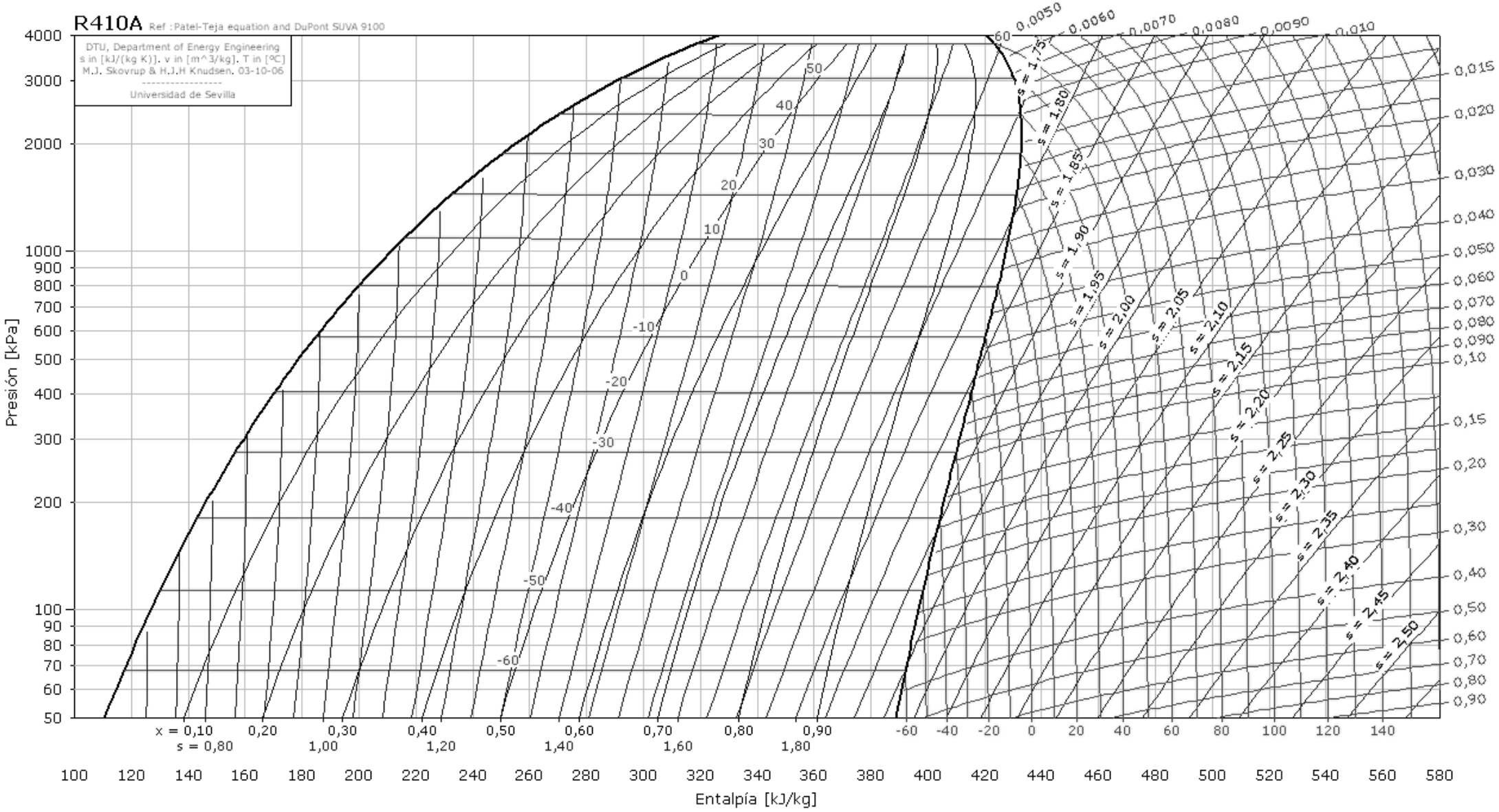
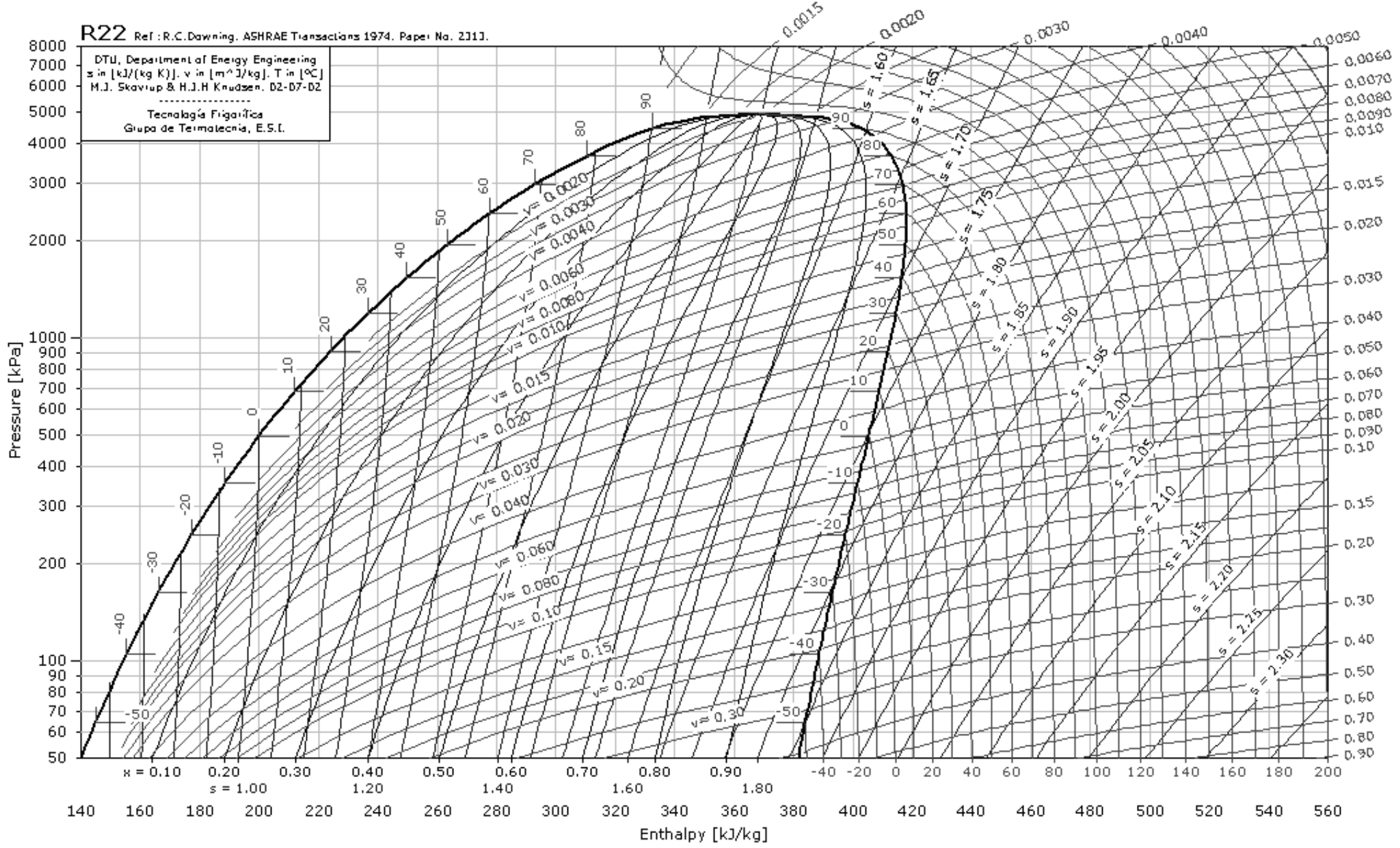
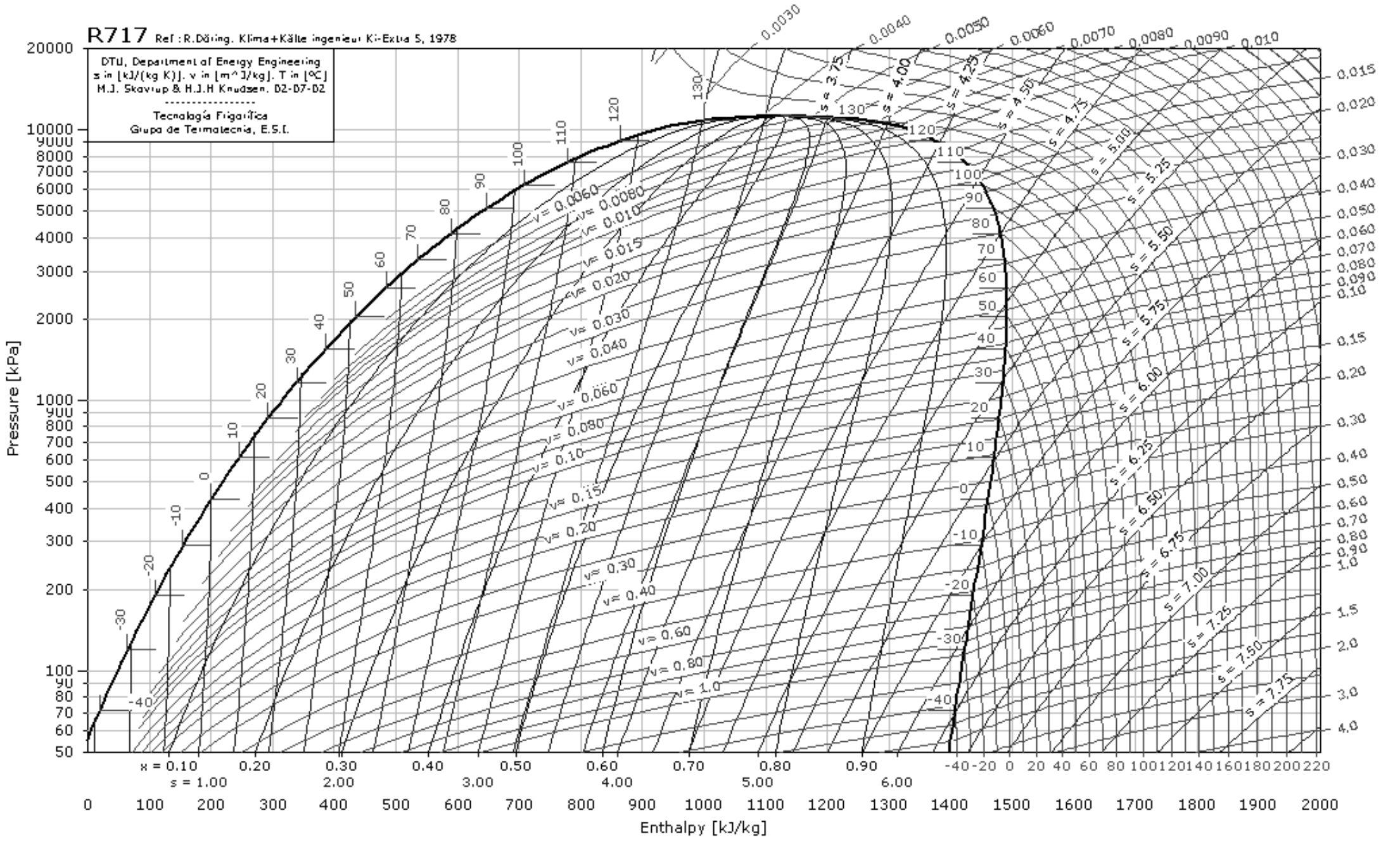

R134a Ref : D.P.Wilson & R.S.Basu, ASHRAE Transactions 1988, Vol. 94 part 2.
DTU, Department of Energy Engineering
s in [kJ/(kg K)]. v in [m^3/kg]. T in [°C]
M.J. Skovrup & H.J.H Knudsen. 02-07-02
Tecnología Frigorífica
Grupo de Termotecnia, E.S.I.
Pressure [kPa]
Enthalpy [kJ/kg]
x = 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90
s = 1.00 1.20 1.40 1.60
v= 0.0020
v= 0.0030
v= 0.0040
v= 0.0060
v= 0.0080
v= 0.010
v= 0.015
v= 0.020
v= 0.030
v= 0.040
v= 0.060
v= 0.080
v= 0.10
v= 0.15
v= 0.20
s = 1.70
s = 1.75
s = 1.80
s = 1.85
s = 1.90
s = 1.95
s = 2.00
s = 2.05
s = 2.10
s = 2.15
s = 2.20
s = 2.25


R404A Ref : DuPont SUVA HP62
DTU, Department of Energy Engineering
s in [kJ/(kg K)], v in [m^3/kg], T in [°C]
M.J. Skovrup & H.J.H Knudsen, DJ-1D-01
Universidad de Sevilla
Presión [kPa]
Entalpía [kJ/kg]
4000
3000
2000
1000
900
800
700
600
500
400
300
200
100
90
80
70
60
50
120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540
x = 0,10 0,20 0,30 0,40 0,50 0,60 0,70 0,80 0,90
s = 1,00 1,20 1,40 1,60
-40 -20 0 20 40 60 80 100 120 140 160
0,0020 0,0030 0,0040 0,0050 0,0060 0,0070 0,0080
0,009 0,010 0,015 0,020 0,030 0,040 0,050 0,060 0,070 0,080 0,090 0,10 0,15 0,20 0,30 0,40 0,50 0,60 0,70
60 50 40 30 20 10 0 -10 -20 -30 -40 -50
s = 1,60 s = 1,65 s = 1,70 s = 1,75 s = 1,80 s = 1,85 s = 1,90 s = 1,95 s = 2,00 s = 2,05 s = 2,10 s = 2,15 s = 2,20


R407C Ref : DuPont SUVA AC9000
DTU, Department of Energy Engineering
s in [kJ/(kg K)], v in [m^3/kg], T in [°C]
M.J. Skovrup & H.J.H Knudsen. DJ-1D-01
Universidad de Sevilla
Presión [kPa]
Entalpía [kJ/kg]
x = 0,10 0,20 0,30 0,40 0,50 0,60 0,70 0,80 0,90
s = 1,00 1,20 1,40 1,60 1,80
0,0020 0,0030 0,0040 0,0050 0,0060 0,0070
0,008 0,009 0,010 0,015 0,020 0,030 0,040 0,050 0,060 0,070 0,080 0,090 0,10 0,15 0,20 0,30 0,40 0,50 0,60 0,70 0,80
60 50 40 30 20 10 0 -10 -20 -30 -40 -50
s = 1,75 s = 1,80 s = 1,85 s = 1,90 s = 1,95 s = 2,00 s = 2,05 s = 2,10 s = 2,15 s = 2,20 s = 2,25 s = 2,30 s = 2,35 s = 2,40


R410A Ref :Patel-Teja equation and DuPont SUVA 9100
DTU, Department of Energy Engineering
s in [kJ/(kg K)]. v in [m^3/kg]. T in [ºC]
M.J. Skovrup & H.J.H Knudsen. 03-10-06
Universidad de Sevilla
Presión [kPa]
Entalpía [kJ/kg]
x = 0,10 0,20 0,30 0,40 0,50 0,60 0,70 0,80 0,90
s = 0,80 1,00 1,20 1,40 1,60 1,80
50 40 30 20 10 0 -10 -20 -30 -40 -50 -60
s = 1,75 s = 1,80 s = 1,85 s = 1,90 s = 1,95 s = 2,00 s = 2,05 s = 2,10 s = 2,15 s = 2,20 s = 2,25 s = 2,30 s = 2,35 s = 2,40 s = 2,45 s = 2,50
0,0050 0,0060 0,0070 0,0080 0,0090 0,010
0,015 0,020 0,030 0,040 0,050 0,060 0,070 0,080 0,090 0,10 0,15 0,20 0,30 0,40 0,50 0,60 0,70 0,80 0,90


R22 Ref : R.C.Dawning. ASHRAE Transactions 1974. Paper No. 2311.
DTU, Department of Energy Engineering
s in [kJ/(kg K)]. v in [m^3/kg]. T in [°C]
M.J. Skovrup & H.J.H Knudsen. 02-07-02
Tecnología Frigorífica
Grupo de Termotecnia, E.S.I.
Pressure [kPa]
Enthalpy [kJ/kg]
x = 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90
s = 1.00 1.20 1.40 1.60 1.80
-40 -20 0 20 40 60 80 100 120 140 160 180 200
140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560


R717 Ref : R.Döring, Klima+Kälte ingenieur Ki-Extra 5, 1978
DTU, Department of Energy Engineering
s in [kJ/(kg K)], v in [m^3/kg], T in [°C]
M.J. Skovrup & H.J.H Knudsen, 02-07-02
Tecnalogía Frigorífica
Grupa de Termotecnia, E.S.I.
Pressure [kPa]
Enthalpy [kJ/kg]
x = 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90
s = 1.00 2.00 3.00 4.00 5.00 6.00