c0(1) = 120 - (((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05) - 10^4;

c0(2) = 120 - (((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05) - 10^4;

c0(3) = 0.134 - (((1 / x(5) ) - x(4)) / (x(3) - x(4))) - 0.997;

c0(4) = 0.012 - (x(4) / x(6)) - 0.048;

c0(5) = 0.041 - (x(4) / ((1 / x(5) ) - x(4))) - 121;

c0(6) = (x(3) - 2\*x(4) + x(7)\*(2\*x(3)+2\*x(4))) - 1.5;

c0(7) = (((1 - exp((1/Cr)\*( ((1 / ((1/(((((0.6522\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^-0.5403\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1541\*( x(4) / x(6))^0.1499\*( x(4) / ((1 / x(5) ) - x(4)))^-0.0678)\*(1+5.269e-05\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^1.34\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.504\*( x(4) / x(6))^0.456\*( x(4) / ((1 / x(5) ) - x(4)))^-1.055)^0.1) \*(1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7)))\* 1122 \* 0.731^(-2/3))\*10^-3)\*( x(1)\*x(2)\*x(7)\*(1+2\*x(5)\*(x(3)-x(4))))))+(1/(((((0.6522\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^-0.5403\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1541\*( x(4) / x(6))^0.1499\*( x(4) / ((1 / x(5) ) - x(4)))^-0.0678)\*(1+5.269e-05\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^1.34\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.504\*( x(4) / x(6))^0.456\*( x(4) / ((1 / x(5) ) - x(4)))^-1.055)^0.1) \* (2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* 1073 \* 0.694^(-2/3))\*10^-3)\*( x(1)\*x(2)\*x(7)\*(1+2\*x(5)\*(x(3)-x(4)))))))) / (mh \* Cph))\*10^3)^0.22\*(exp(-Cr\*(((1 / ((1/(((((0.6522\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^-0.5403\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1541\*( x(4) / x(6))^0.1499\*( x(4) / ((1 / x(5) ) - x(4)))^-0.0678)\*(1+5.269e-05\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^1.34\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.504\*( x(4) / x(6))^0.456\*( x(4) / ((1 / x(5) ) - x(4)))^-1.055)^0.1) \*(1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7)))\* 1122 \* 0.731^(-2/3))\*10^-3)\*( x(1)\*x(2)\*x(7)\*(1+2\*x(5)\*(x(3)-x(4))))))+(1/(((((0.6522\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^-0.5403\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1541\*( x(4) / x(6))^0.1499\*( x(4) / ((1 / x(5) ) - x(4)))^-0.0678)\*(1+5.269e-05\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^1.34\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.504\*( x(4) / x(6))^0.456\*( x(4) / ((1 / x(5) ) - x(4)))^-1.055)^0.1) \* (2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* 1073 \* 0.694^(-2/3))\*10^-3)\*( x(1)\*x(2)\*x(7)\*(1+2\*x(5)\*(x(3)-x(4)))))))) / (mh \* Cph))\*10^3)^0.78)-1))) \* Cmin \* (TempH - TempC))\*10^-3)-1069.8;

c0(8) = (((2)\*( (9.6243\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^-0.7422\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1856\*( x(4) / x(6))^0.3053\*( x(4) / ((1 / x(5) ) - x(4)))^-0.2659)\*(1+7.669e-08\*(((1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))/4.01e-05)^4.429\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.920\*( x(4) / x(6))^3.767\*( x(4) / ((1 / x(5) ) - x(4)))^0.236)^0.1)\*x(1)\*(( 1.66 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(2)\*x(7)))^2))/((0.6296)\*( ((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))\*10e-4) - 9.5;

c0(9) = (((2)\*( (9.6243\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^-0.7422\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^-0.1856\*( x(4) / x(6))^0.3053\*( x(4) / ((1 / x(5) ) - x(4)))^-0.2659)\*(1+7.669e-08\*(((2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1))) \* (((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4))))) / 3.36e-05)^4.429\*(((1 / x(5) ) - x(4)) / (x(3) - x(4)))^0.920\*( x(4) / x(6))^3.767\*( x(4) / ((1 / x(5) ) - x(4)))^0.236)^0.1)\*x(2)\*(( 2 / ((x(3) - x(4))\*(1 - x(5)\*x(4))\*x(1)\*(x(7)+1)))^2))/((0.9638)\*( ((4)\*(((1 / x(5) ) - x(4)))\*(x(6))\*(x(3) - x(4)))/(2\*((((1 / x(5) ) - x(4))\*x(6))+(x(3)-x(4))\*x(6)+(x(3) - x(4))\*x(4))+x(4)\*((1 / x(5) ) - x(4)))))\*10e-4) - 8;