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APPENDIX

Computer program using Matlab

```
clc
clear

T=369.16;
RH=0.04 % 8%
Mw=0.04476;
M=1.63;
n= 1.052;
%---------------------------------------------
mt=1.055*10^(-3);
Cw=2272;
Ct=1.3;
K=4.256*10^(-3);
deltax=0.067;
Tr=301.36;

for i=1:37

A(i)=i;
%From Equation 3
Me=((log(1-RH))/((-4.5*10^(-3))*T))^(1/n);
Mev(i)=Me;
%From Equation 1
deltaM=258.19*K*(M-Me)*deltax;

%From Equation 2
deltaT=((mt*deltaM*Cw+0.00118*deltax*(T-Tr))/(Ct*mt+(1.012*0.06613)));

%From Equation 4
deltaM_w=0.015*deltaM;

%From Equation 5
Pw=((Mw*10^5)/(0.62+Mw));

%From Equation 6
Ps=610.78*exp(((T-273.16)*17.2694)/(T-34.86));

%From Equation 9
RH=(Pw/Ps);
RHv(i)=RH;
%From Equation 8
T=T-deltaT;
Tv(i)=T;
```

```
%From Equation 9
M=M-deltaM;
Mv(i)=M;
%From Equation 10
Mw=Mw+deltaM_w;

end
A
RHv
Mev
Tv
Mv

%plot(A,RHv);
%plot(A,Mev);
%plot(A,Tv);
plot(A,Mv);

S(1,:)=A;
S(2,:)=RHv;
S(3,:)=Mev;
S(4,:)=Tv;
S(5,:)=Mv;

S

%for j=1:9
   %n=j*4;
   %Ts(j)=Tv(4,n);
   %end
%Ts
```