

```

warningoff
% H2 CH4 C2H2 C2H4 C2H6 CO
% === === ===== ===== ===== ==
clc
warning off
% H2 CH4 C2H2 C2H4 C2H6 CO
% === === ===== ===== ===== ==
clc
IN =[1 4 0 1 1 193
1 9 0 1 1 108
6 11 0 2 21 216
1 12 0 1 16 123
1 21 0 1 6 56
3 7 0 6 5 41
3 19 0 7 29 87
175 7 0 10 3 359
372 56 0 10 140 375
4 3 10 7 1 372
34 4 26 4 1 709
4 11 0 6 1 689
16 8 63 8 15 15
30 2 0 4 16 79
3 3 0 4 1 107
47 29 0 7 29 381
2 24 0 6 46 52
13 58 0 11 39 232
23 60 0 11 155 127
43 47 0 10 174 133];

IN;
N = 20;
for k=1: N;
H2(k,1) = IN(k,1);
CH4(k,1) = IN(k,2);
C2H2(k,1) = IN(k,3);
C2H4(k,1) = IN(k,4);
C2H6(k,1) = IN(k,5);
CO(k,1) = IN(k,6);
end
R1 = CH4./H2;
R2 = C2H2./C2H4;
R3 = C2H2./CH4;
R4 = C2H6./C2H2;
R5= C2H4./C2H6;
for k=1:N;
if H2(k,1)<=200 & CH4(k,1)<=240 & C2H2(k,1)<=2 & C2H4(k,1)<=100
&C2H6(k,1)<=130 &CO(k,1)<=700;
out(k,1)=0;
else
fis = readfis('Doernenburg');
out(k,1) = evalfis([R1(k,1) R2(k,1) R3(k,1) R4(k,1)],fis);
end
end
for k=1:N;
if out(k,1)<=200 & CH4(k,1)<=240 & C2H2(k,1)<=2 & C2H4(k,1)<=100 &
C2H6(k,1)<=130 & CO(k,1)<=700;
out(k,1)=0;
else
fis = readfis('Doernenburg');

```