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Supplemental information

**Ammonia distribution characteristics
at the selective catalytic reduction
reactor inlet with linear partitioning**

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clc;
clear;
% Set up parallel computing%
CoreNum=10; % Set the number of CPU cores on the machine%
if isempty(gcp('nocreate'))
    parpool(CoreNum);
end
T(1,:)=(0.8:0.1:1.2);
u=length(T);
parfor x=1:u
    a=(0:0.1:0.5)*T(1,x);
    n=length(a);
    h=zeros(1,n);
    m=12960;
    for j=1:n
        b=zeros(m,4);
        b(:,3)=normrnd(T(1,x),a(j),1,m)';
        b(:,2)=0.00446;
        b(:,4)=653.15;
        b(:,1)=2;
        c=zeros(m,1);
        d=zeros(m,1);
        o=0;
        k=0;
        for i=1:m
            [c(i),d(i)]=shuju(b(i,1),b(i,2),b(i,3),b(i,4));
            if c(i)<0 || c(i)>1 || isnan(c(i))
                c(i)=0;
                o=o+1;
            end
            if d(i)<0 || d(i)>1 || isnan(d(i))
                d(i)=0;
                k=k+1;
            end
        end
        i
    end
    a(j)=roundn(100*sum(c)/(m-o),-2);
    h(j)=roundn(100*sum(d)/(m-k),-9);
end
H(x,:)=a(1,:);
K(x,:)=h(1,:);
end
figure(1)
plot(H)

```

figure(2)
plot(K)