

核融合エネルギー工学レポート 0530

問 1(5)

```
x1 = -48.9580809680824;  
x2 = 18.1155080330636;  
x3 = 895.149425658926;  
x4 = 135.888636700177;  
x5 = 0.366290140624939;  
ev = 1.60e-19; %[J/ev]  
  
T = logspace(0,3); %[keV]  
kT = T.*10^3*ev; %[J]  
E = 3.52e6*ev; %[J]  
  
sigma_nu = exp(x1-x2./T.^x5+x3./(T+x4)); %[m^3/s]  
  
n_tau = 12*kT./(sigma_nu.*E);  
  
figure;  
loglog(T,n_tau)  
grid on  
  
xlabel('T [keV]')  
ylabel('<n\tau_e> [m^3/s]')  
title('n\tau_e-T diagram')
```

