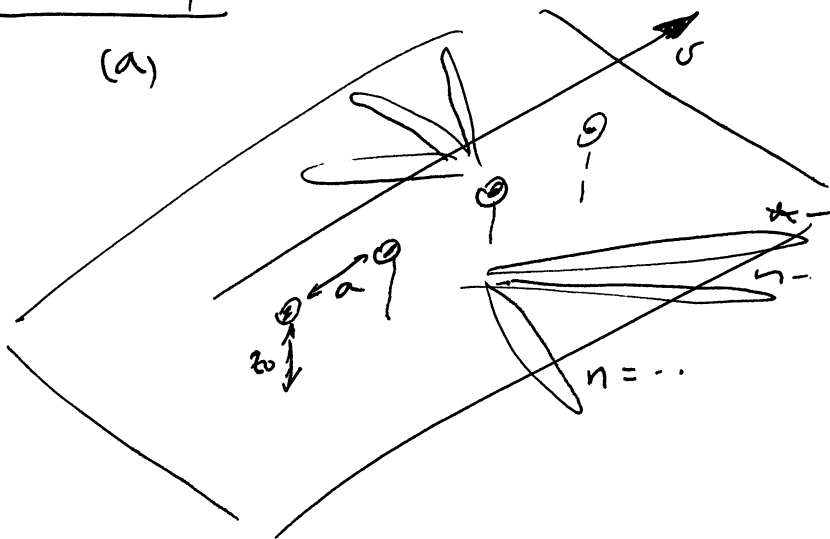
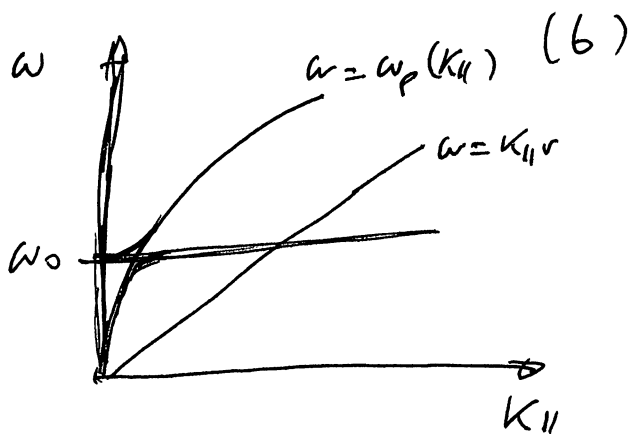
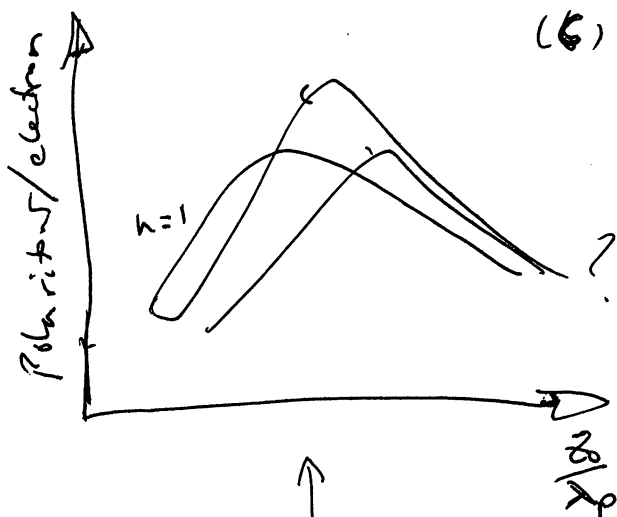


FIG. 4

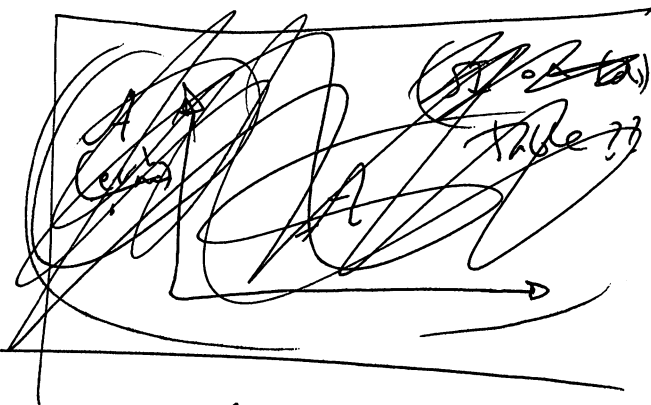
(a)



(b)



fix material  
omega  
a



$A = \text{material } \{A\}$

$[A] = E^2 L$

$$\hbar \omega = \sqrt{A K_{\parallel}}$$

$$\hbar^2 \omega^2 = A K_{\parallel}$$

→ noble metal  $\epsilon_{\infty} = \epsilon_0 - \frac{\omega_{p, \text{noble}}^2}{\omega(\omega + i\gamma)}$

$$A = \frac{d \hbar^2 \omega_{p, \text{noble}}^2}{\epsilon_1 + \epsilon_2}$$

→ graphene

$$A = 2 e^2 E_F$$

$$d \frac{1}{\epsilon_2} \frac{\epsilon_1}{\epsilon_2} \leftarrow \epsilon$$

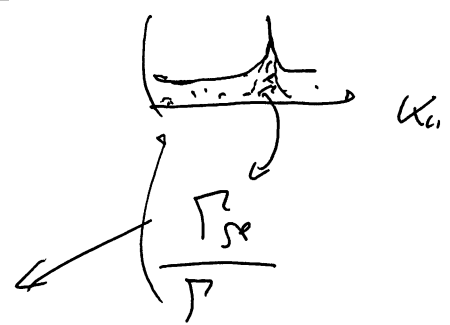
Au, Ag  $\rightarrow \hbar \omega_{p, \text{noble}} \sim 9 \text{ eV}$

$\epsilon_1 = 1, \epsilon_2 = 2 \rightarrow A = 39.2 \text{ eV nm}^2$   
 $d = 2 \text{ nm}$

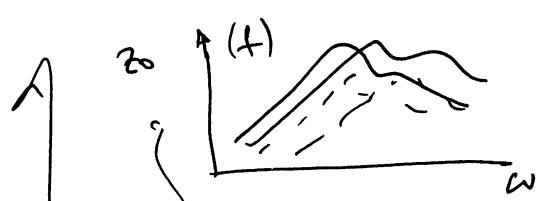
$E_F = 0.5 \text{ eV} \rightarrow A = 1.45 \text{ eV nm}^2$

Table I  $\rightarrow A$

FIG. 2

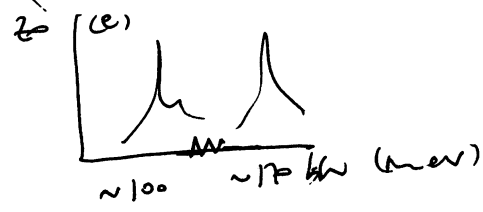


$$\Gamma = \Gamma_{sp} + \Gamma_{rel} + \dots$$



—  $\bar{\rho}_{11} \hat{x}$   
 ---  $\bar{\rho}_{11} \hat{z}$

diff col, diff from ~~the~~ ~~surface~~  
~~diff interface~~



LBN



Sm(L)

discussion — // less less —  
 resonant

FIG. 3

$$\frac{P_n}{N}$$

a

a

$\omega$

$\omega$

$\omega$

take  $\omega(\omega)$  from Fig. 2

$$v = 0.01 C$$

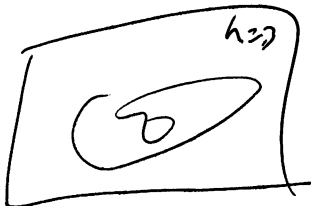
$$0.1 C$$

$$A = \dots$$

(note,

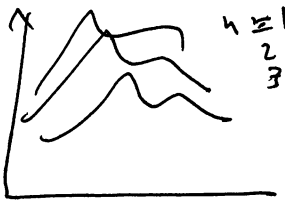


$\omega$

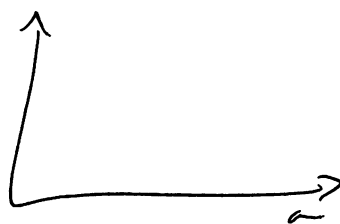


$\omega = f(x, \omega)$

$\omega = -$



a



$\theta$

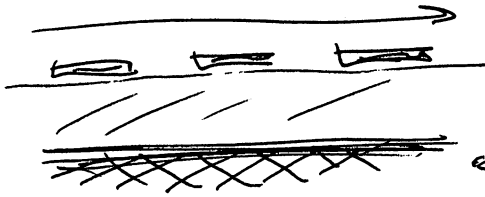


$\omega = f(x, \omega)$   
+ character

FIG. 4

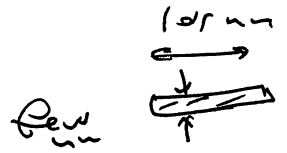
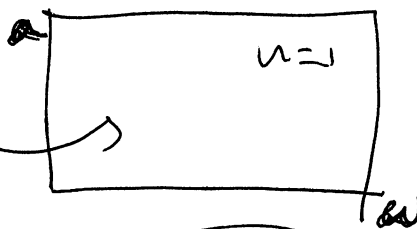


↑ hBN disk



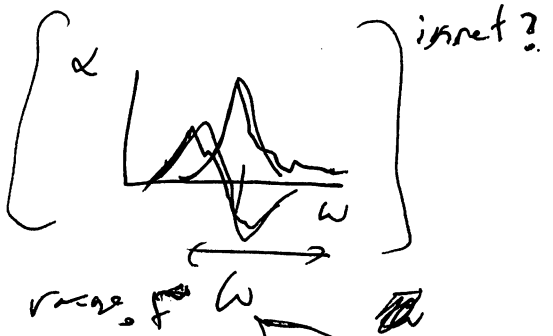
← disk metal

$\frac{P_n}{N}$



use #303 for  $\alpha$

Eq. (11)  
+ Table 1



reasonable choice of  
U such that the  
J-P condition is  
satisfied at