# Structures Report

#### Reinaldo Zapata

## 1 Up

## $1.1 \quad \mathcal{V}^{\mathrm{xb}}$ energy range $0.0\text{--}0.2 \; \mathrm{eV}$

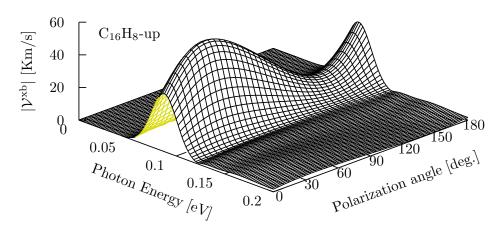


Figure 1: The most intense response for  $V^{xb}$  is for  $40^{\circ}$ .

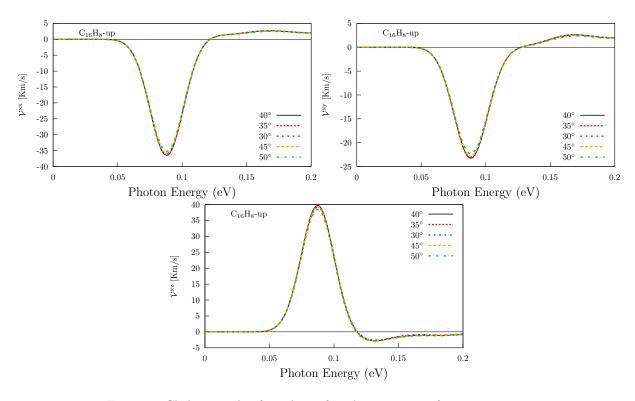


Figure 2: Cheking angle of incidence for xb components for up structure.

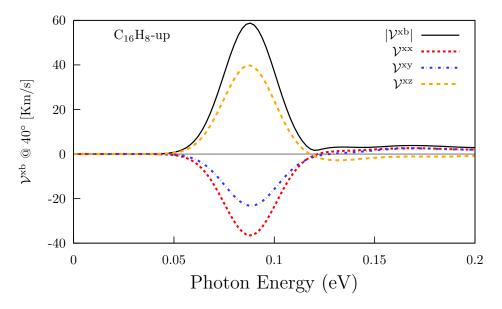


Figure 3: Three components of  $V^{xb}$  @ 40°.

## $1.2~~\mathcal{V}^{\mathrm{yb}}$ energy range $0.0\text{--}0.2~\mathrm{eV}$

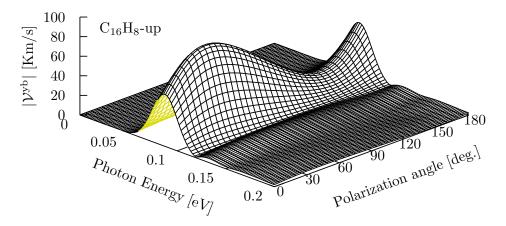


Figure 4: The most intense response for  $\mathcal{V}^{\mathrm{yb}}$  is for  $40^{\circ}$ .

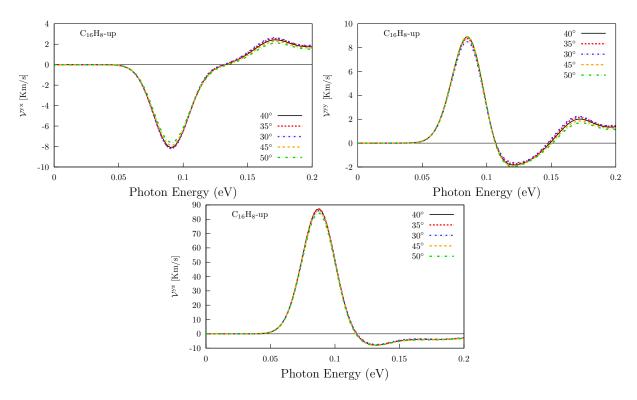


Figure 5: Cheking angle of incidence for yb components.

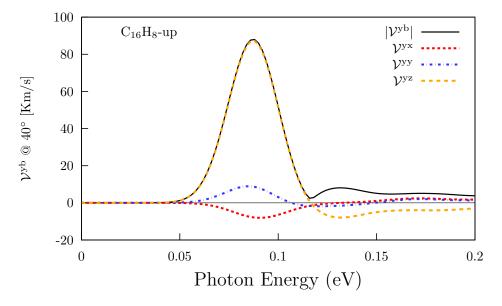


Figure 6: Three components of  $\mathcal{V}^{\mathrm{yb}}$  @ 40°.

## 1.3 $V^{xb}$ energy range 1.8–2.1 eV

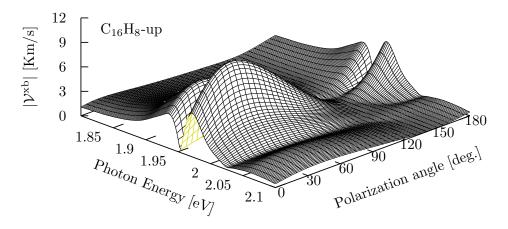


Figure 7: The most intense response for  $\mathcal{V}^{xb}$  is for  $40^{\circ}$ .

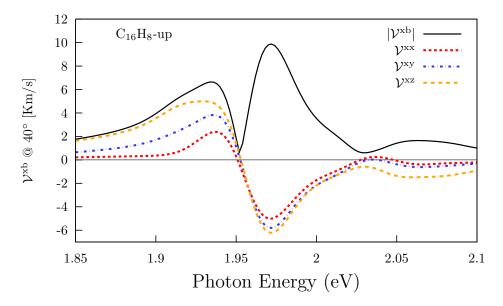


Figure 8: Three components of  $V^{xb}$  @ 40°.

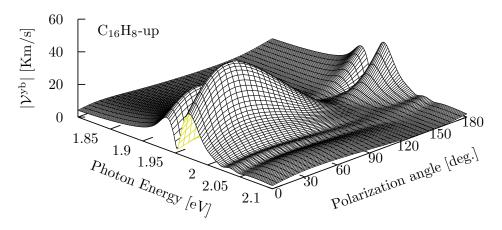


Figure 9: The most intense response for  $V^{yb}$  is for  $40^{\circ}$ .

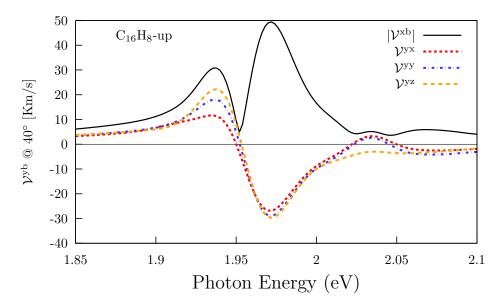


Figure 10: Three components of  $V^{yb}$  @ 40°.

# 1.4 $|\mathcal{V}^{ab}|$ , angles $\theta$ and $\varphi$ , layers, and comparison with CdSe and GaAs for the energy range of 0.0–0.2 eV.

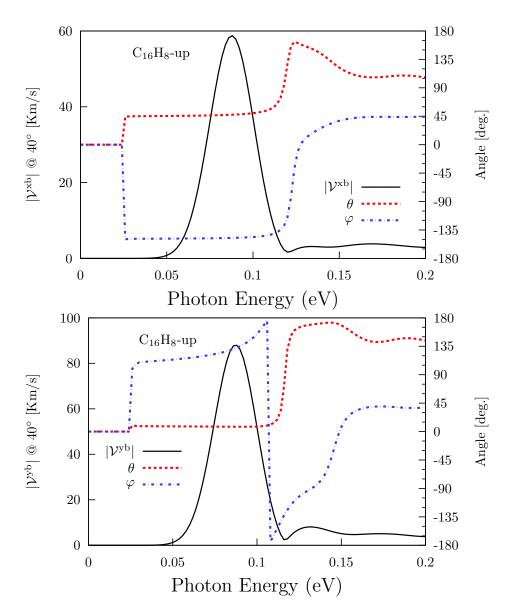


Figure 11:  $|\mathcal{V}^{ab}|$  (solid line, leftside scale) and the corresponding angles  $\theta$  and  $\varphi$  (dashed lines, rightside scale).

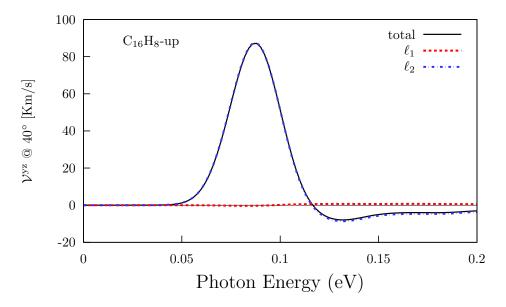


Figure 12: Layer decomposition for the most intense response:  $\mathcal{V}^{yz}$ .

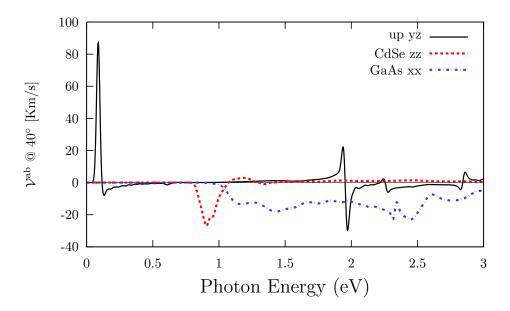


Figure 13: Comparisson of the most intense response vs the most intense responses of CdSe and GaAs.

# 1.5 $|\mathcal{V}^{ab}|$ , angles $\theta$ and $\varphi$ , layers, and comparison with CdSe and GaAs for the energy range of 1.8–2.1 eV

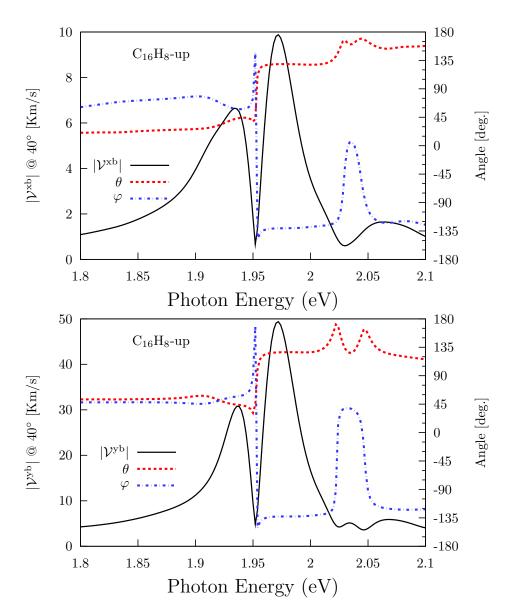


Figure 14:  $|\mathcal{V}^{ab}|$  (solid line, leftside scale) and the corresponding angles  $\theta$  and  $\varphi$  (dashed lines, rightside scale).

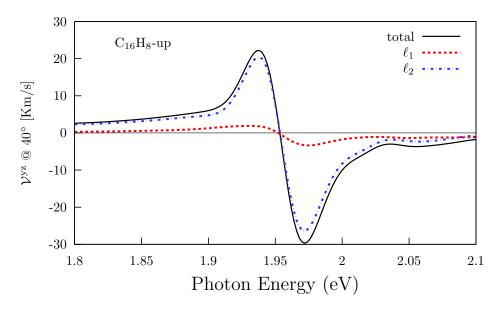


Figure 15: Layer decomposition for the most intense response:  $\mathcal{V}^{yz}$ .

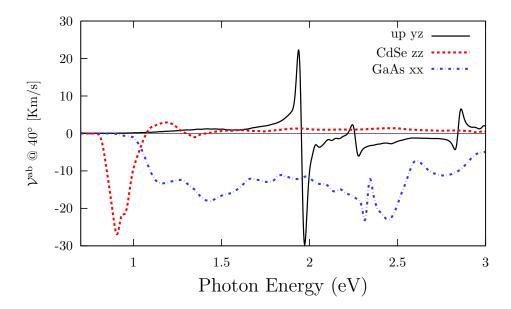


Figure 16: Comparisson of the most intense response vs the most intense responses of CdSe and GaAs.

## 2 alt

## 2.1 $V^{xb}$

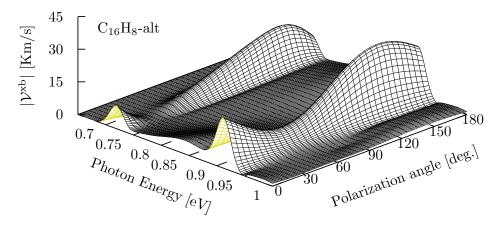


Figure 17: The most intense response for  $V^{xb}$  is for 145°.

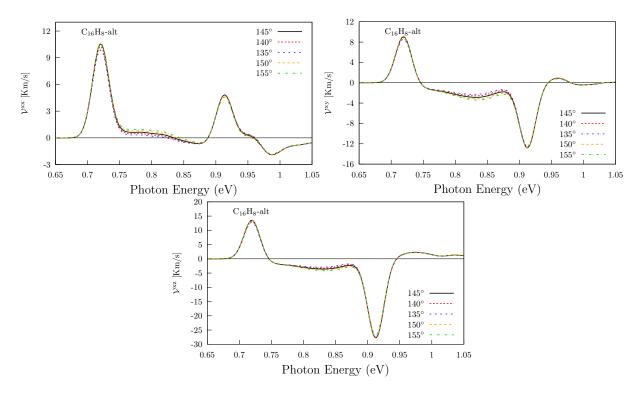


Figure 18: Cheking angle of incidence for xb components.

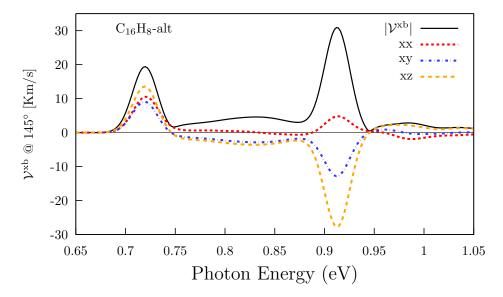


Figure 19: Three components of  $V^{xb}$  @ 145°.

# $\mathbf{2.2}$ $\mathcal{V}^{\mathrm{yb}}$

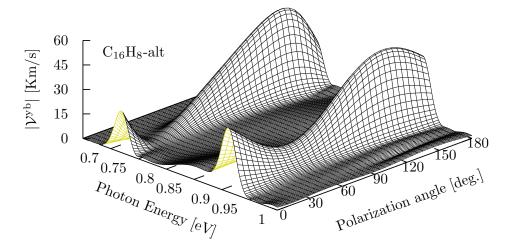


Figure 20: The most intense response for  $V^{yb}$  is for 145°.

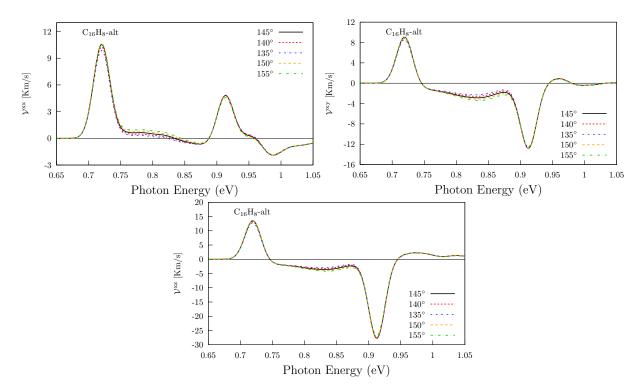


Figure 21: Cheking angle of incidence for yb components.

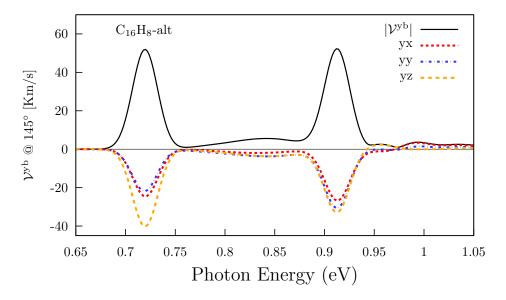


Figure 22: Three components of  $V^{yb}$  @ 145°.

## 2.3 $|\mathcal{V}^{ab}|$ , angles $\theta$ and $\varphi$ , layers, and comparison with CdSe and GaAs.

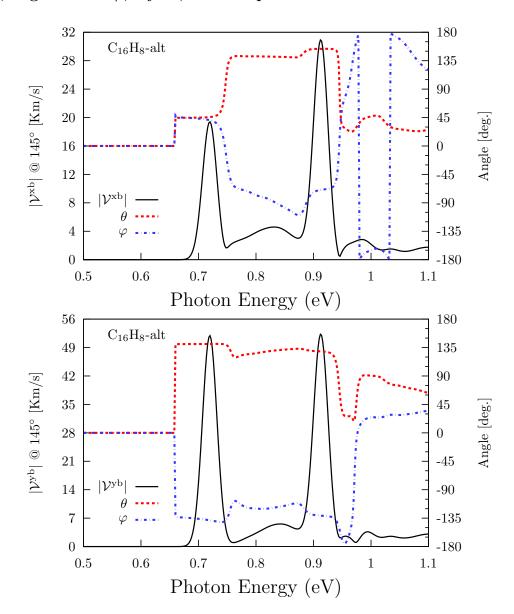


Figure 23:  $|\mathcal{V}^{ab}|$  (solid line, left side scale) and the corresponding angles  $\theta$  and  $\varphi$  (dashed lines, right side scale).

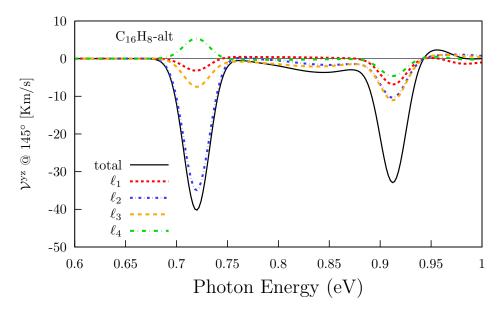


Figure 24: Layer decomposition for the most intense response:  $V^{yz}$ .

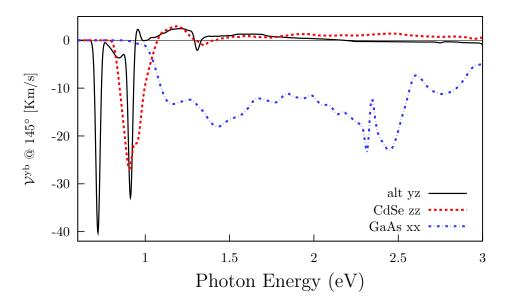


Figure 25: Comparisson of the most intense response vs the most intense responses of CdSe and GaAs.

#### 3 aa

#### 3.1 $V^{xb}$

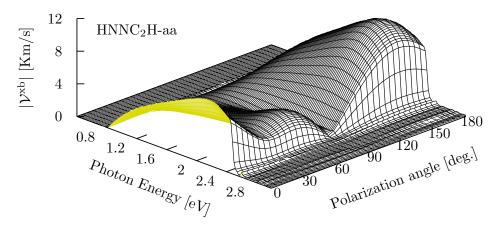


Figure 26: The most intense response for  $V^{xb}$  is for 155°.

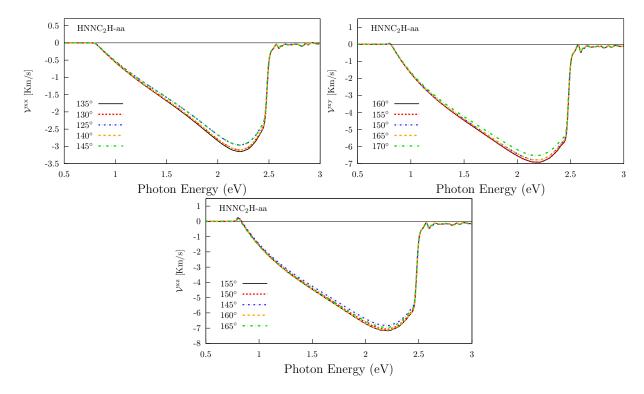


Figure 27: Cheking angle of incidence for xb components. There is a different angle for each component to have the most intense response.

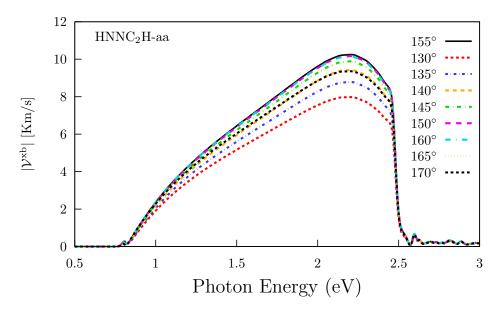


Figure 28: Comparisson of  $|\mathcal{V}^{xb}|$  for different polarization angles.

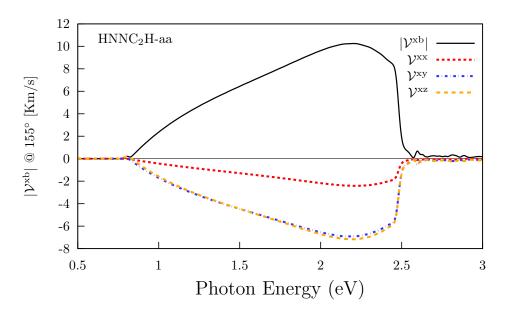


Figure 29: Three components of  $\mathcal{V}^{xb}$  @ 155°.

## $\mathbf{3.2} \quad \mathcal{V}^{\mathrm{yb}}$

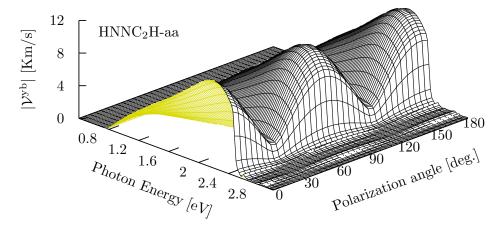


Figure 30: The most intense response for  $V^{yb}$  is for 155°.

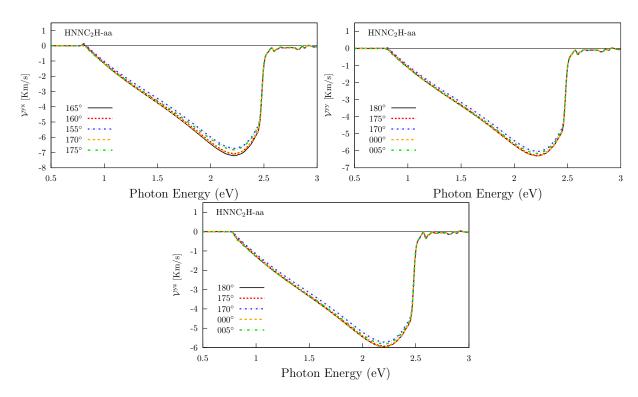


Figure 31: Cheking angle of incidence for yb components. There is a different angle for each component to have the most intense response.

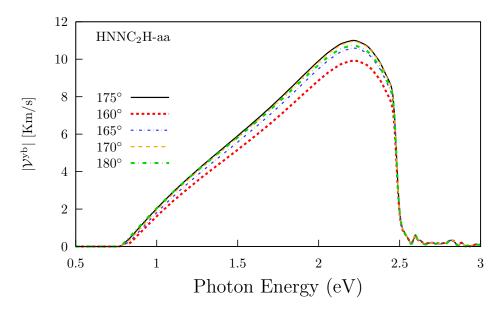


Figure 32: Comparisson of  $|\mathcal{V}^{yb}|$  for different polarization angles.

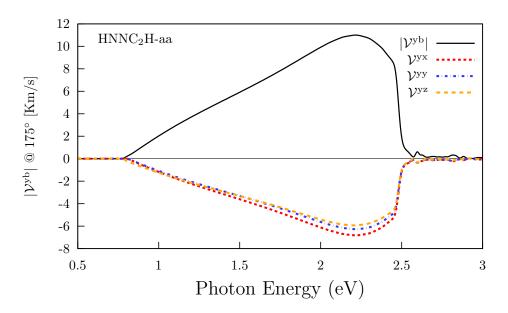


Figure 33: Three components of  $V^{yb}$  @ 175°.

## 3.3 $|\mathcal{V}^{ab}|$ , angles $\theta$ and $\varphi$ , layers, and comparison with CdSe and GaAs.

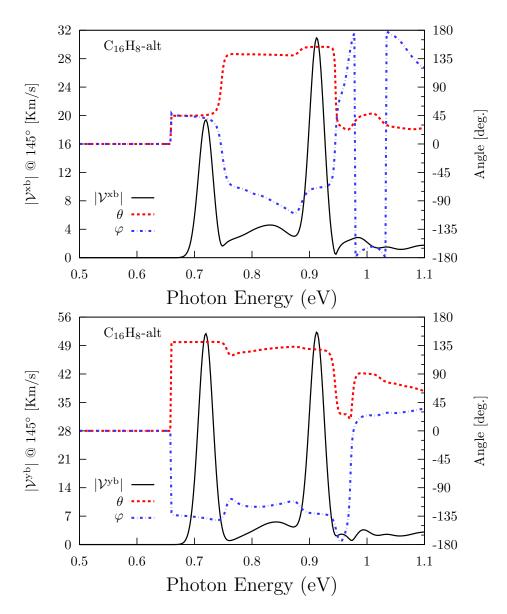


Figure 34:  $|\mathcal{V}^{ab}|$  (solid line, leftside scale) and the corresponding angles  $\theta$  and  $\varphi$  (dashed lines, rightside scale).

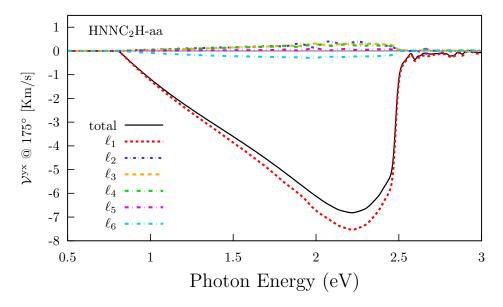


Figure 35: Layer decomposition for the most intense response:  $\mathcal{V}^{yz}$ .

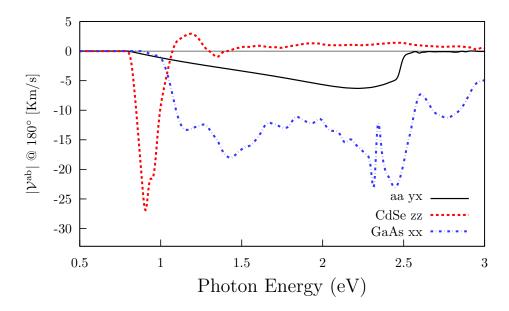


Figure 36: Comparisson of the most intense response vs the most intense responses of CdSe and GaAs.

## 4 ab

#### 4.1 $V^{xb}$

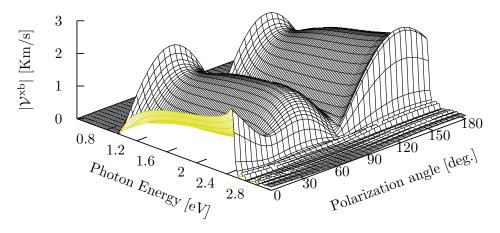


Figure 37: The most intense response for  $V^{xb}$  is for 155°.

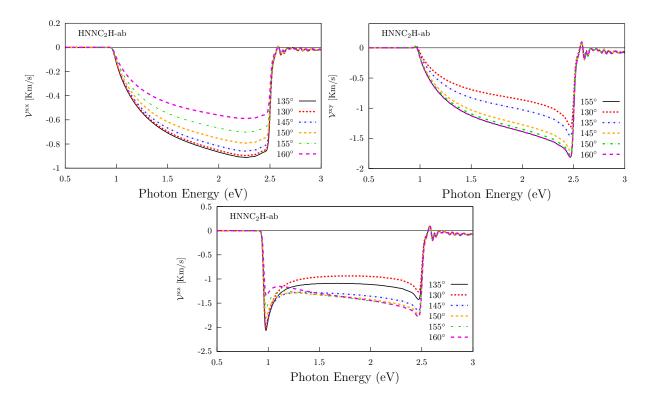


Figure 38: Cheking angle of incidence for xb components. There is a different angle for each component to have the most intense response.

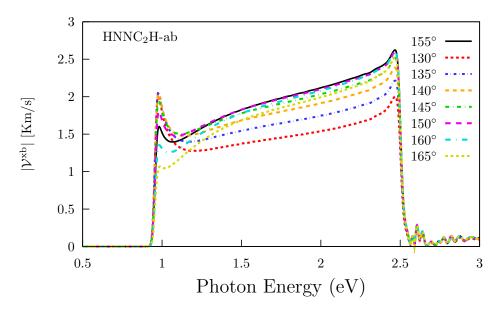


Figure 39: Comparisson of  $|\mathcal{V}^{xb}|$  for different polarization angles.

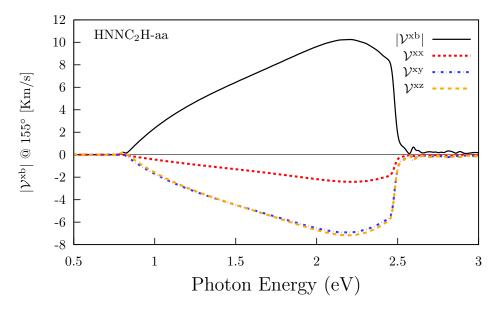


Figure 40: Three components of  $\mathcal{V}^{xb}$  @ 155°.

## $oldsymbol{4.2} oldsymbol{\mathcal{V}}^{ ext{yb}}$

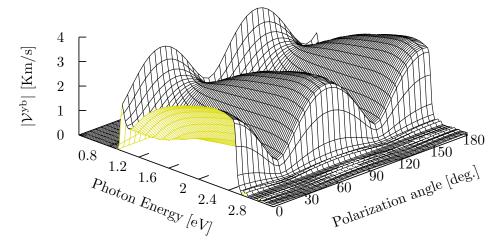


Figure 41: The most intense response for  $V^{yb}$  is for 155°.

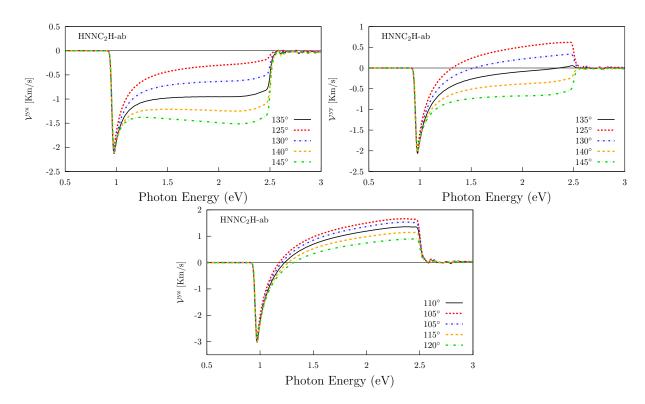


Figure 42: Cheking angle of incidence for yb components. There is a different angle for each component to have the most intense response.

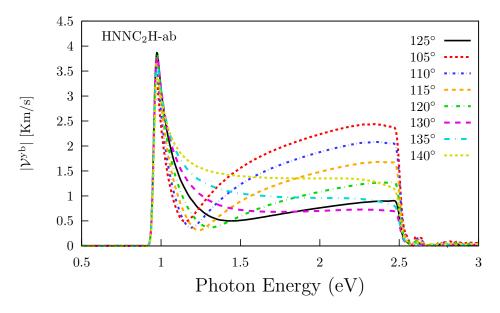


Figure 43: Comparisson of  $|\mathcal{V}^{yb}|$  for different polarization angles.

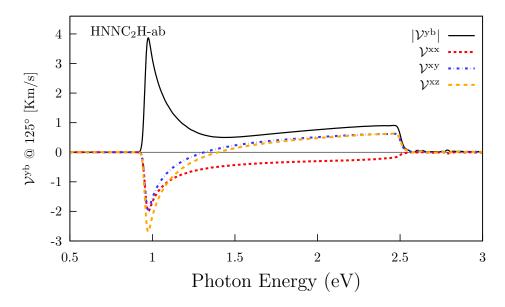


Figure 44: Three components of  $V^{yb}$  @ 125°.

## 4.3 $|\mathcal{V}^{ab}|$ , angles $\theta$ and $\varphi$ , layers, and comparison with CdSe and GaAs.

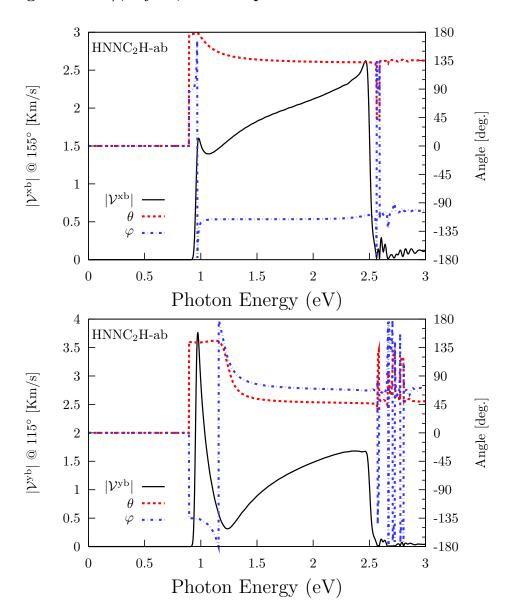


Figure 45:  $|\mathcal{V}^{ab}|$  (solid line, leftside scale) and the corresponding angles  $\theta$  and  $\varphi$  (dashed lines, rightside scale).

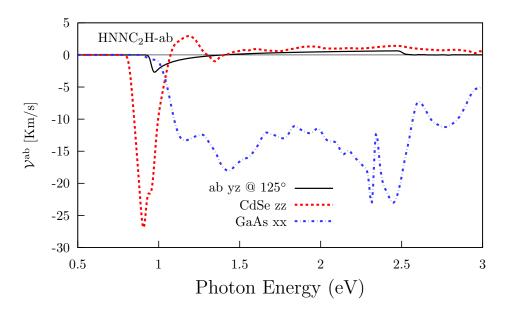


Figure 46: Comparisson of the most intense response vs the most intense responses of CdSe and GaAs.