

# MENU

Introduction

Introduction

## Surface Structures

simple cubic(110)

simple cubic(111)

fcc(110)

fcc(111)

bcc(110)

bcc(111)

simple cubic(100)

hcp(0001)

fcc(100)

hcp(11 $\bar{2}$ 0)

bcc(100)

hcp(10 $\bar{1}$ 0)

## Diffraction Patterns

simple cubic(110)

simple cubic(111)

fcc(110)

fcc(111)

bcc(110)

bcc(111)

simple cubic(100)

hcp(0001)

fcc(100)

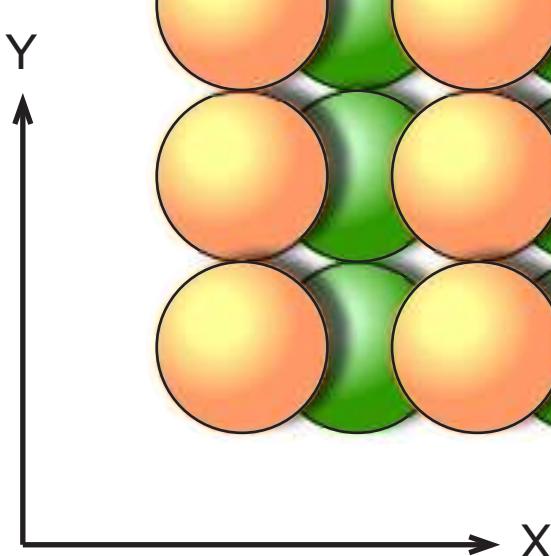
hcp(11 $\bar{2}$ 0)

bcc(100)

hcp(10 $\bar{1}$ 0)

# simple cubic(110)

- Surface view

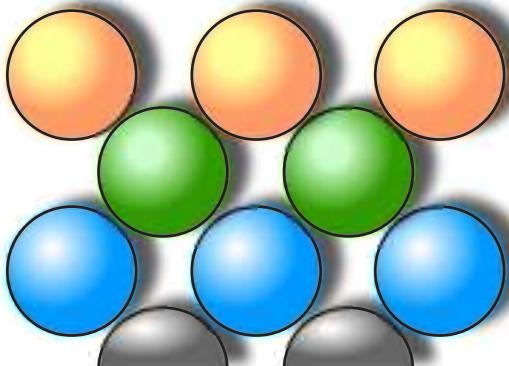
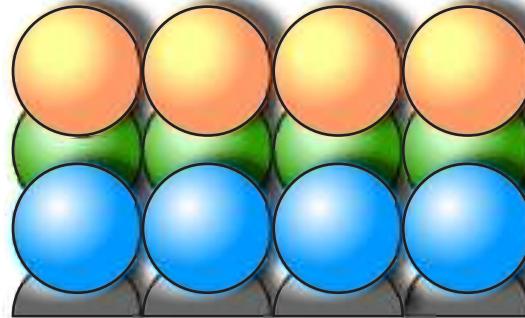


Menu

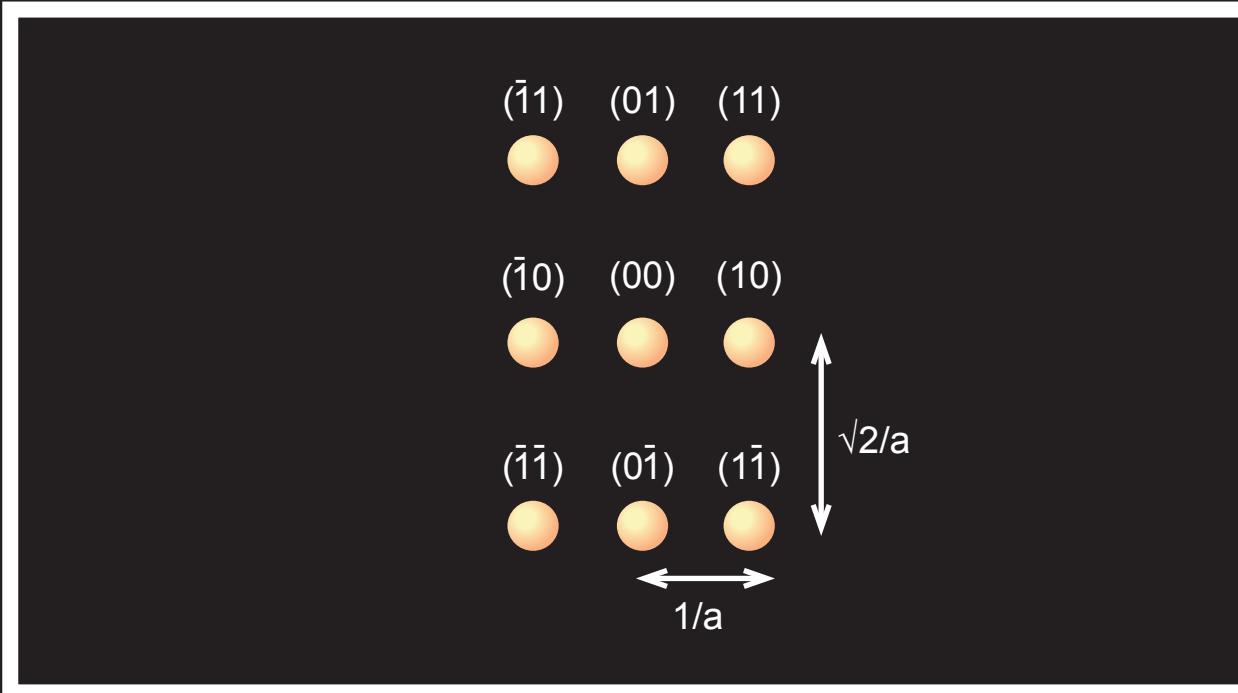


Diffraction Pattern →

$a$  = unit cell length



# Simple Cubic(110)

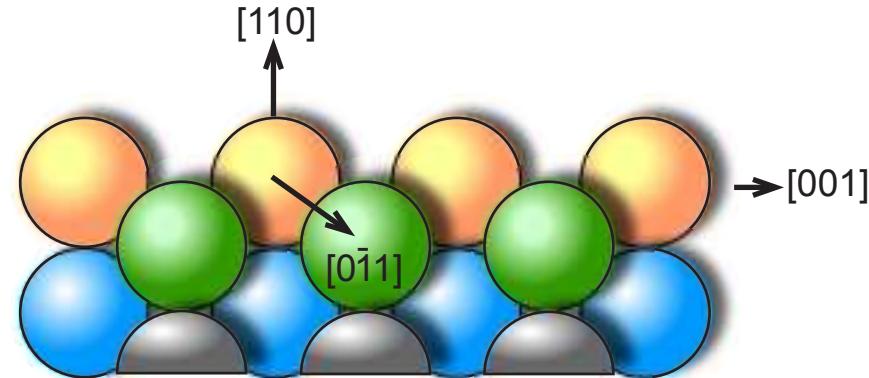
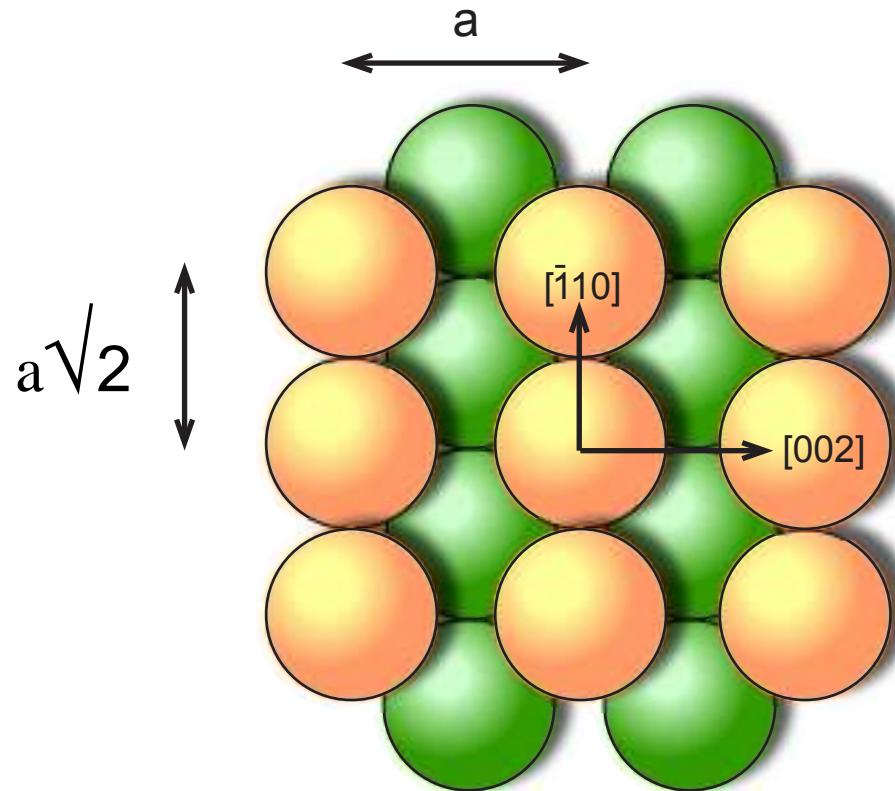


Diffraction Pattern

# fcc(110) - Surface view

Diffraction Pattern →

**a** = unit cell length

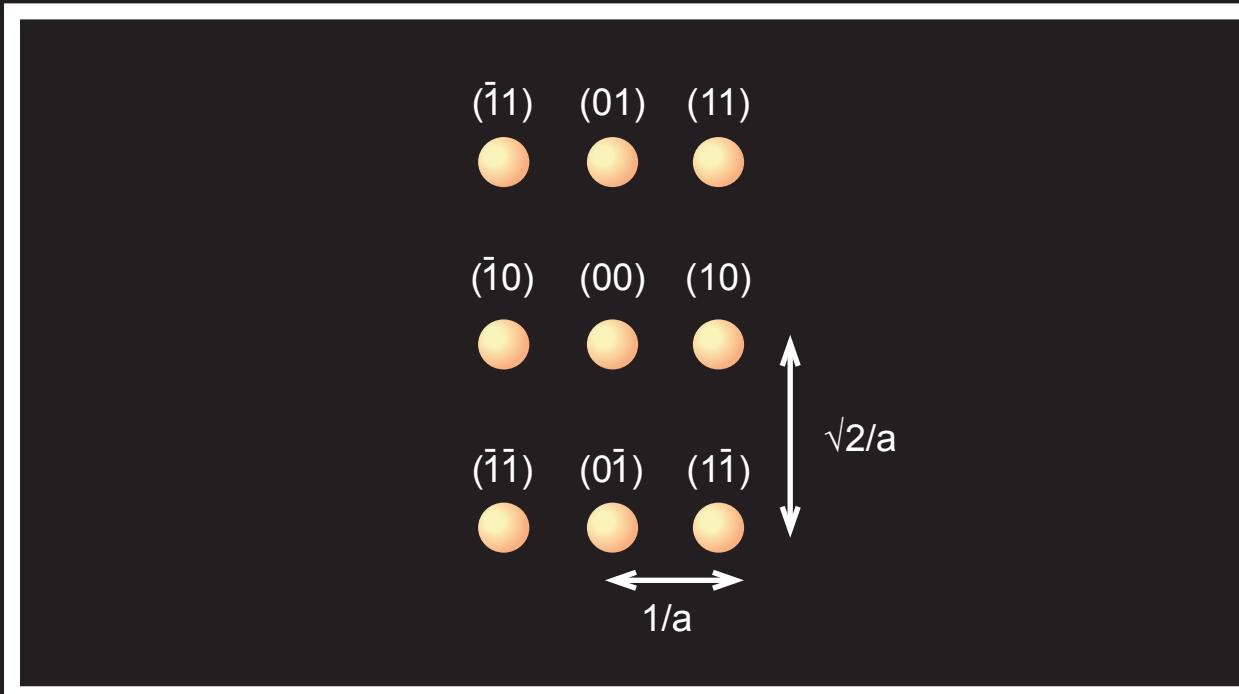


Cross-Sectional View

Menu

Overlays

# fcc(110)

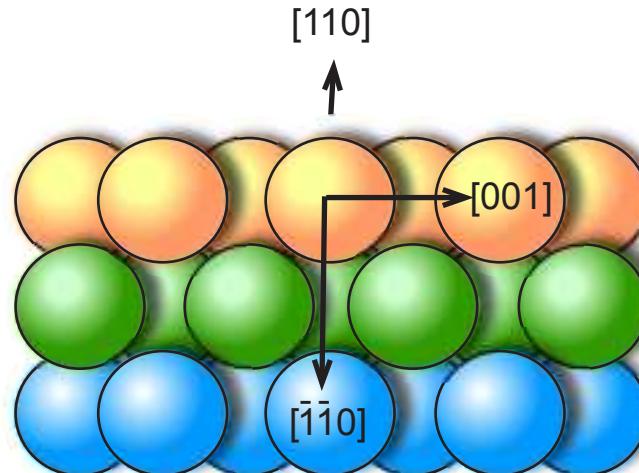
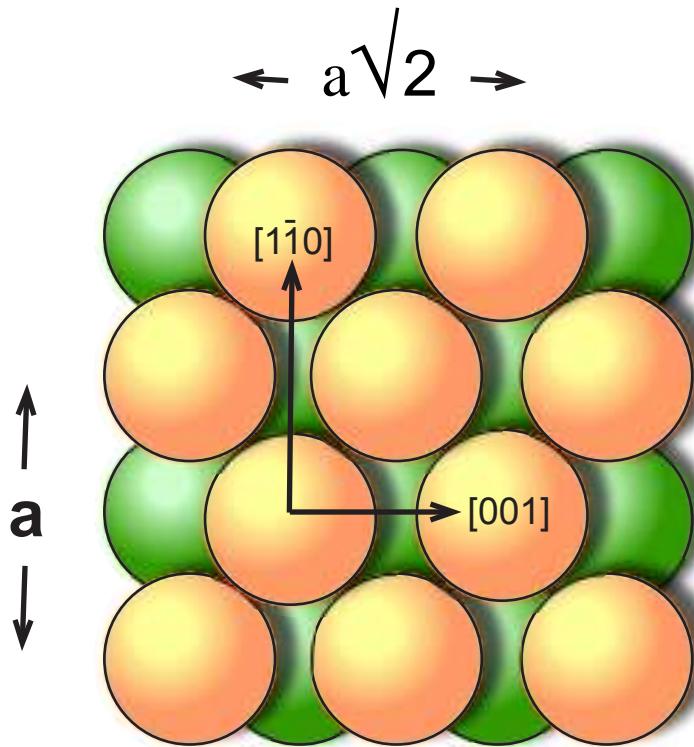


Diffraction Pattern

# bcc(110) - Surface view

Diffraction Pattern →

**a** = unit cell length

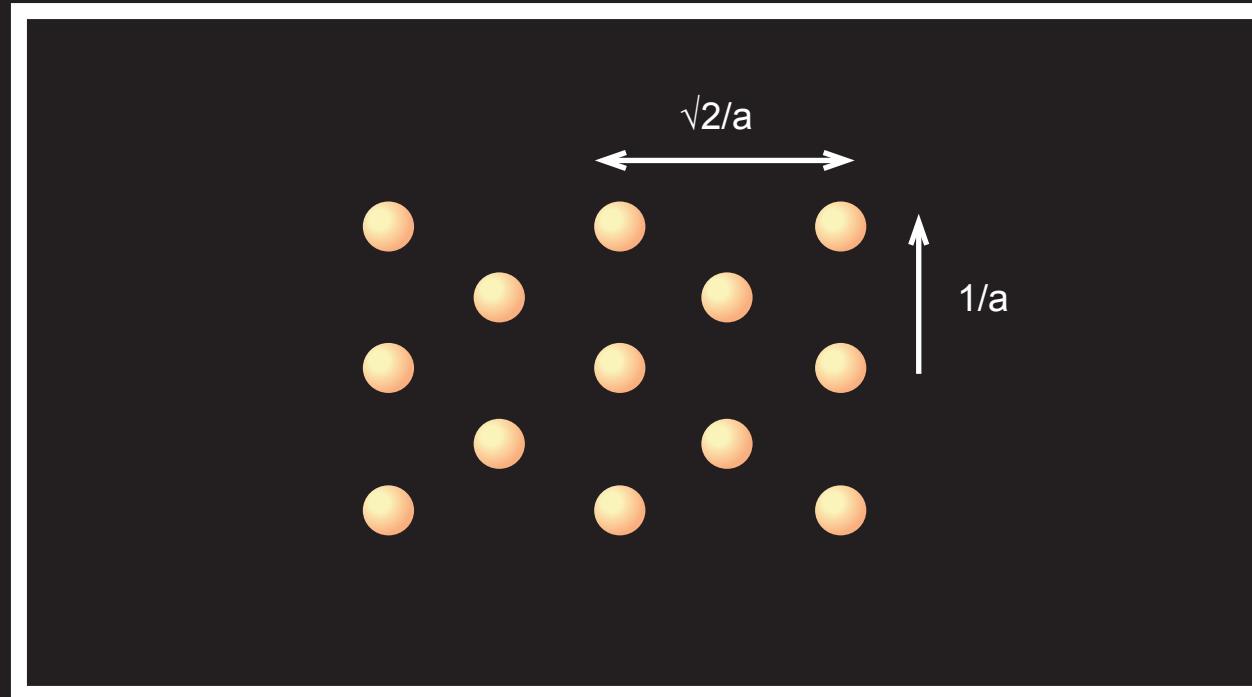


Cross-Sectional View

Menu

Overlays

# bcc(110)

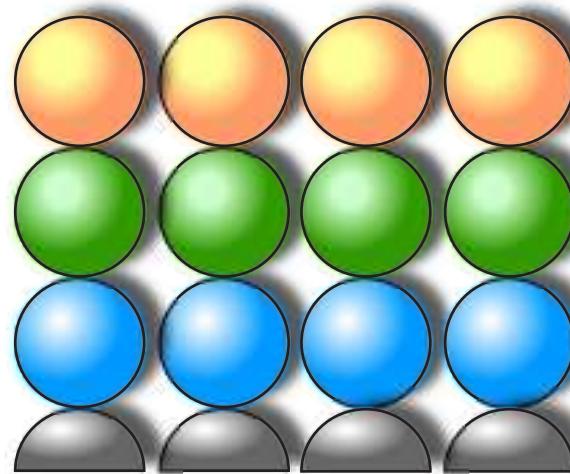
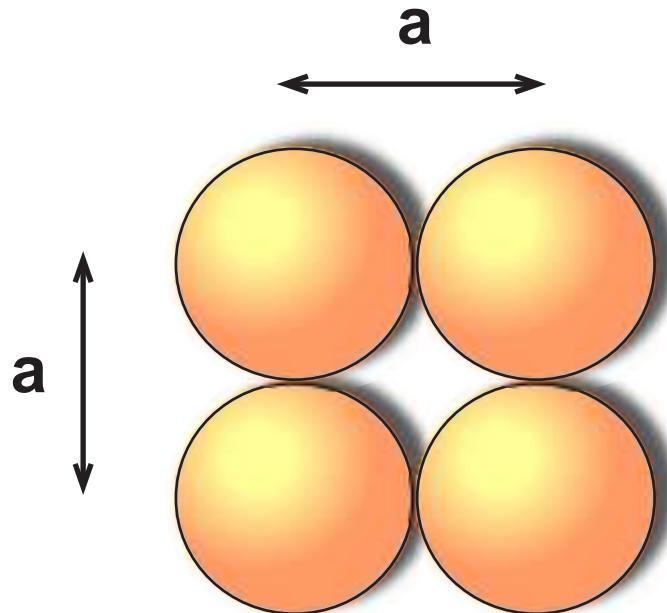


## Diffraction Pattern

# simple cubic(100) - Surface view

Diffraction Pattern →

**a** = unit cell length

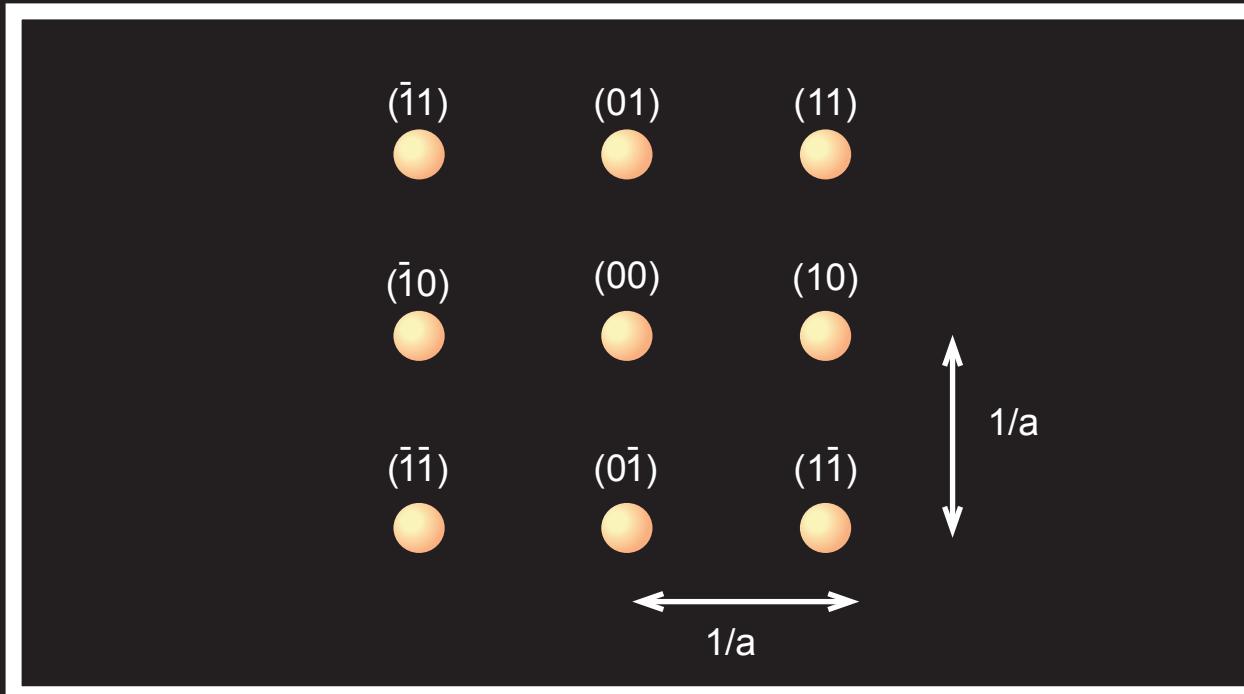


Cross-Sectional View

Menu



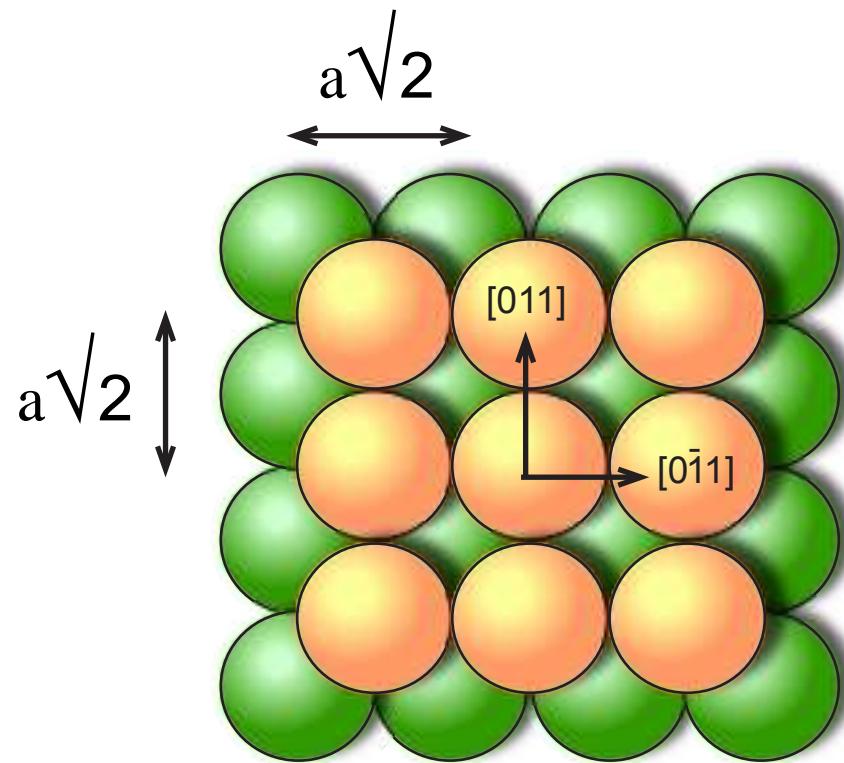
# simple cubic(100)



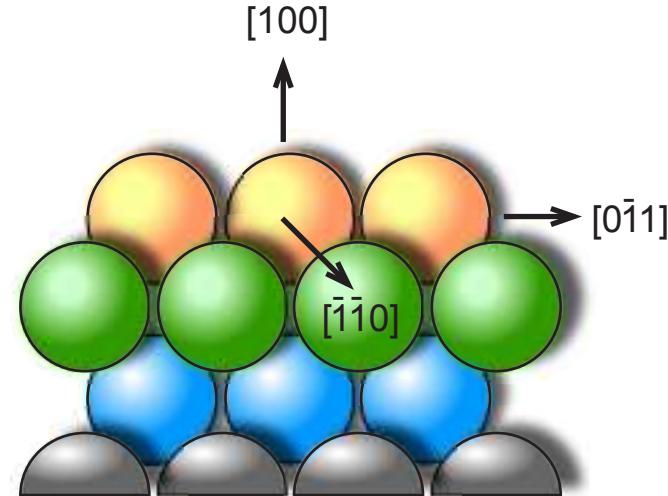
Diffraction Pattern

# fcc(100) - Surface view

Diffraction Pattern →



$a$  = unit cell length

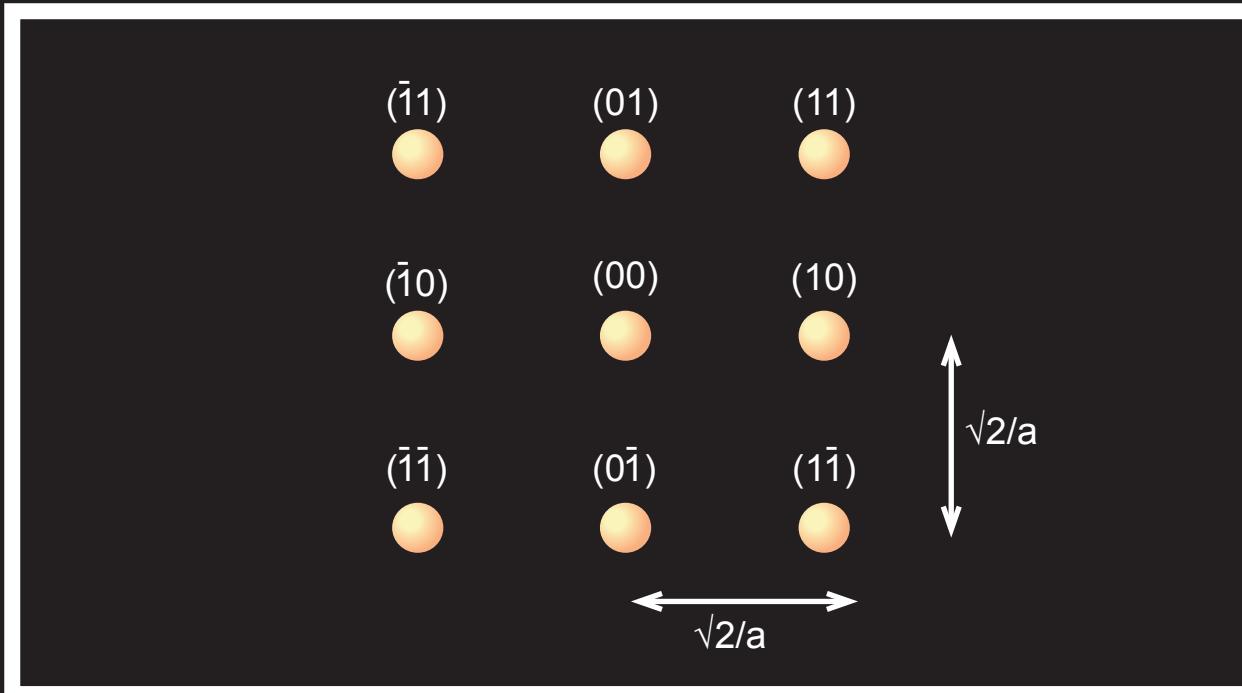


Cross-Sectional View

Menu

Overlays

# fcc(100)



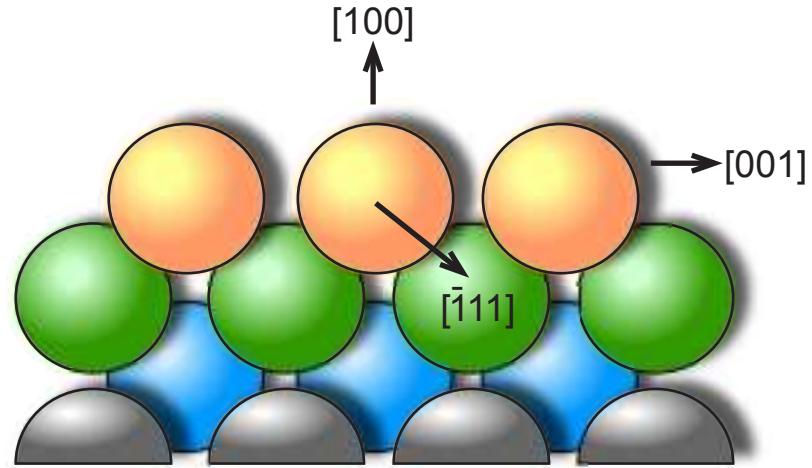
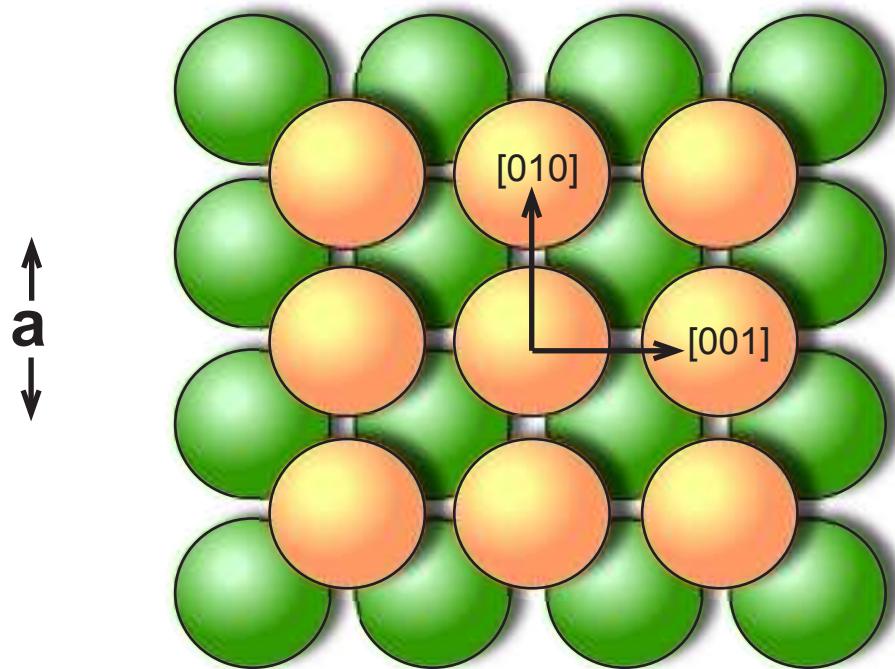
Diffraction Pattern

# bcc(100) - Surface view

Diffraction Pattern →

$a$  = unit cell length

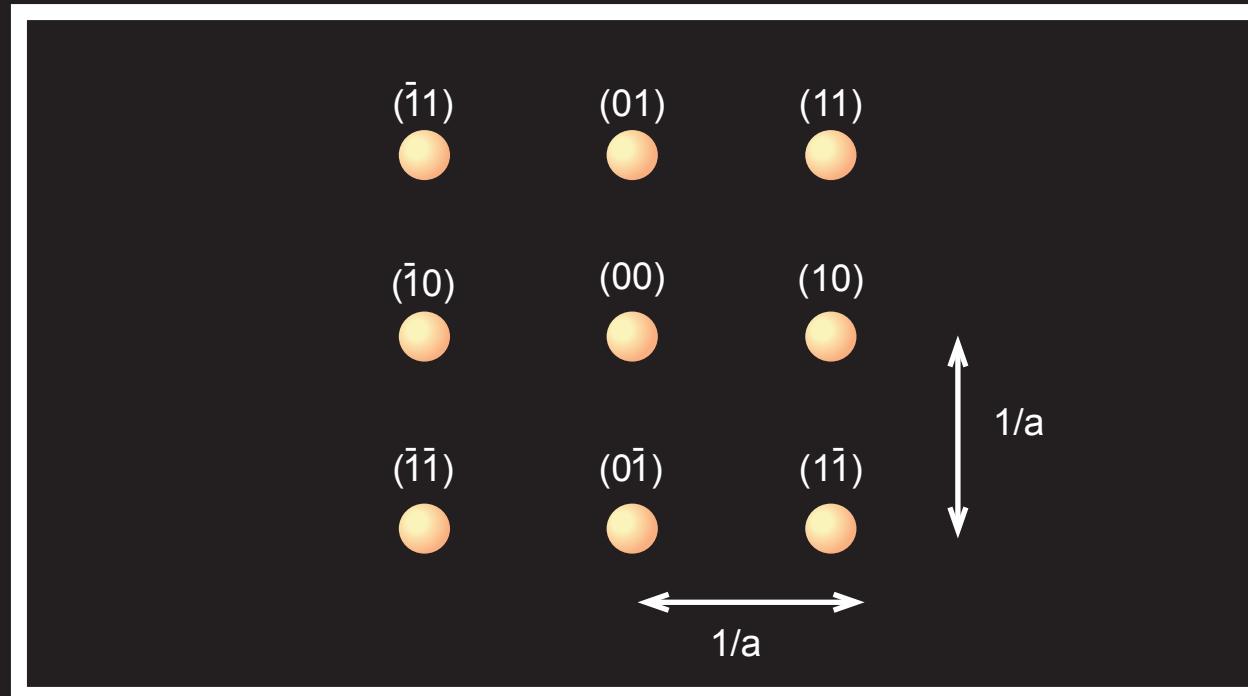
$\longleftrightarrow a \longrightarrow$



Menu

Overlays

# bcc(100)

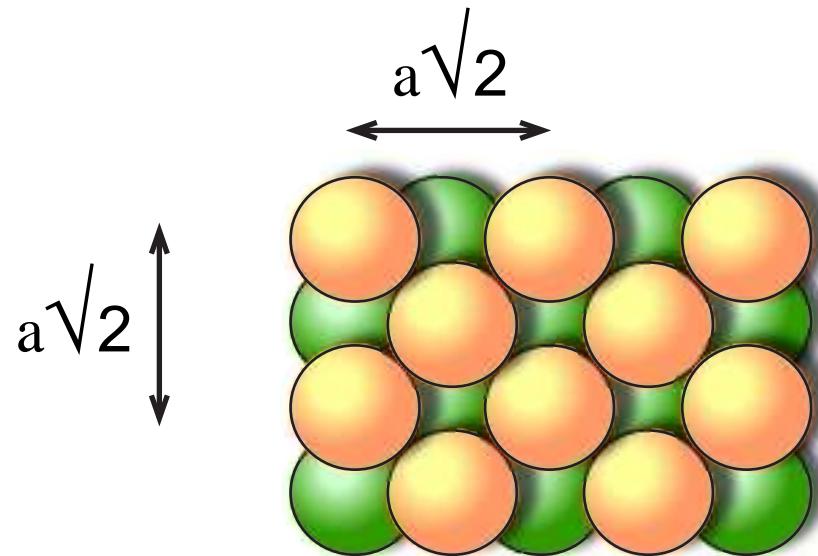


Diffraction Pattern

# simple cubic(111) - Surface view

Diffraction Pattern →

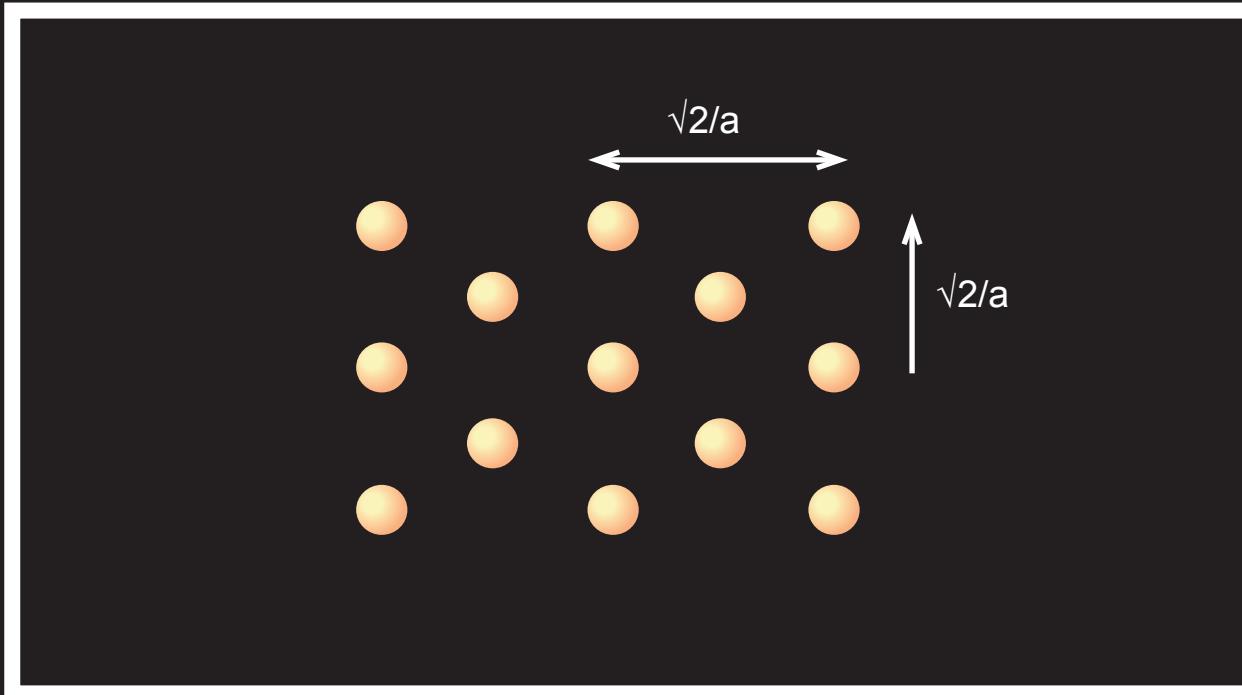
**a** = unit cell length



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# simple cubic(111)

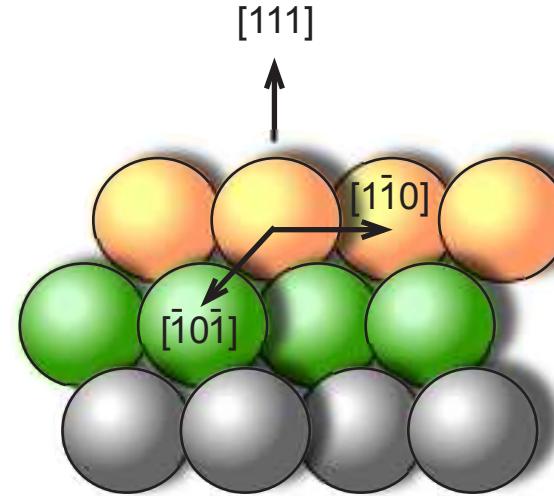
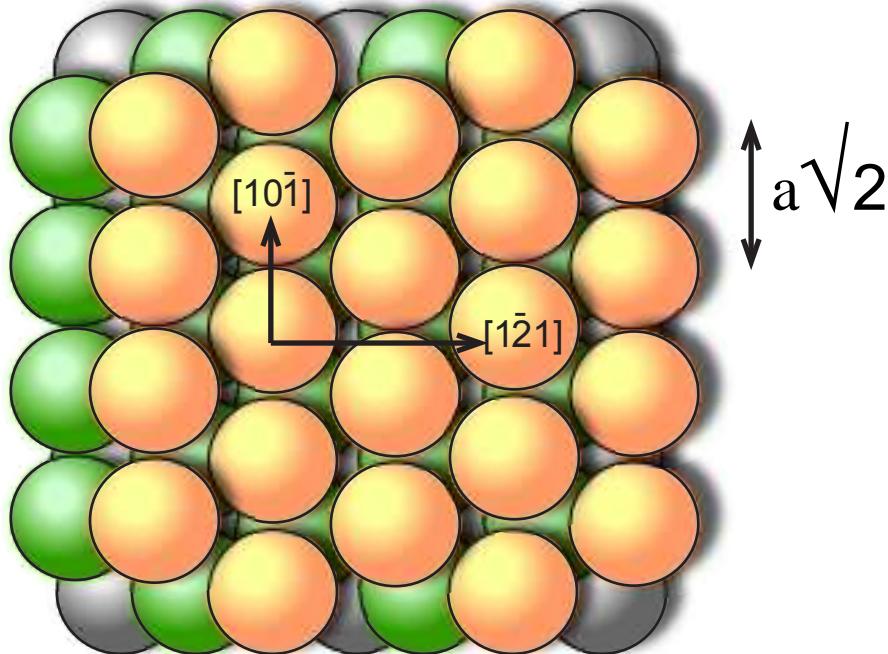


Diffraction Pattern

# fcc(111) - Surface view

Diffraction Pattern →

$a$  = unit cell length

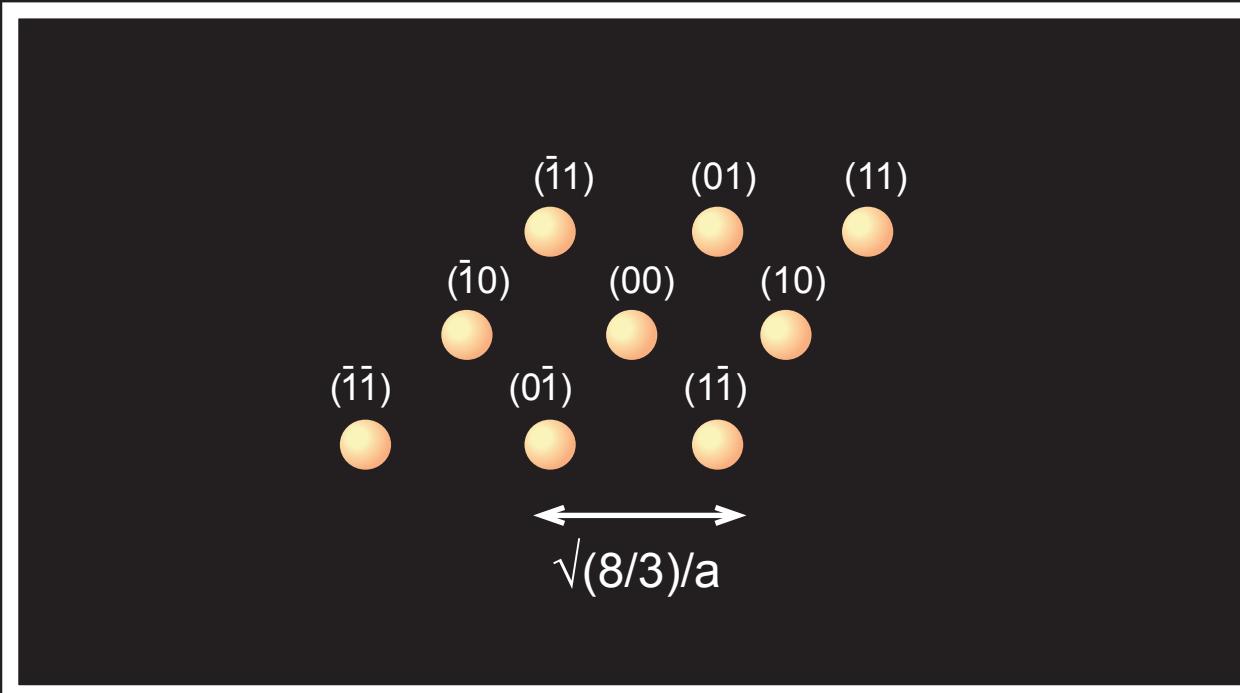


Cross-Sectional View

Menu



# fcc(111)

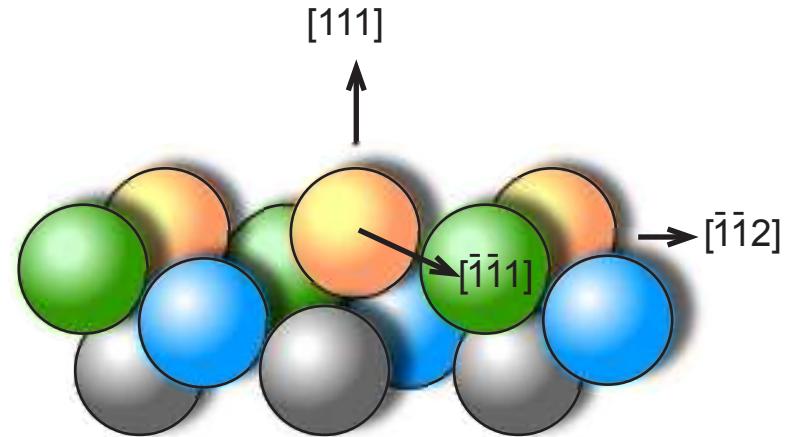
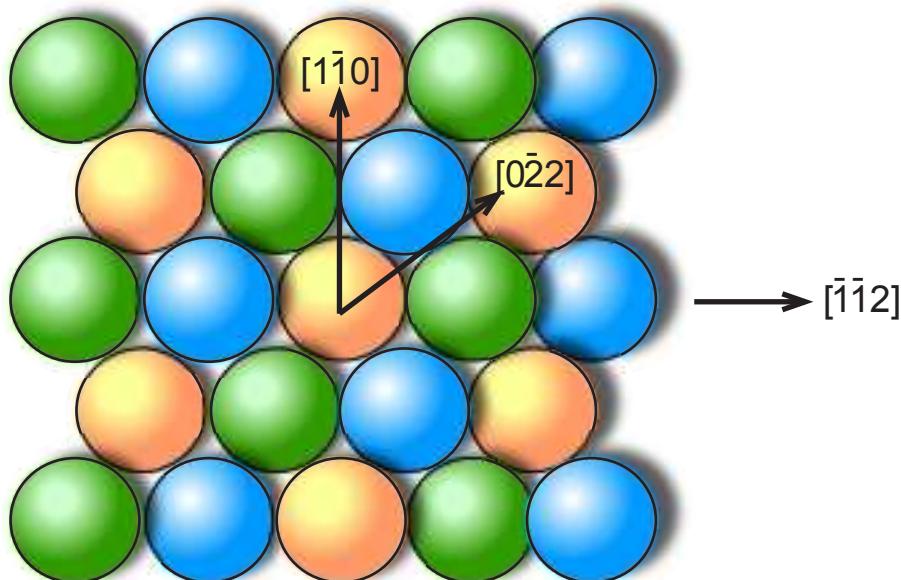


## Diffraction Pattern

# bcc(111) - Surface view

Diffraction Pattern →

$a$  = unit cell length

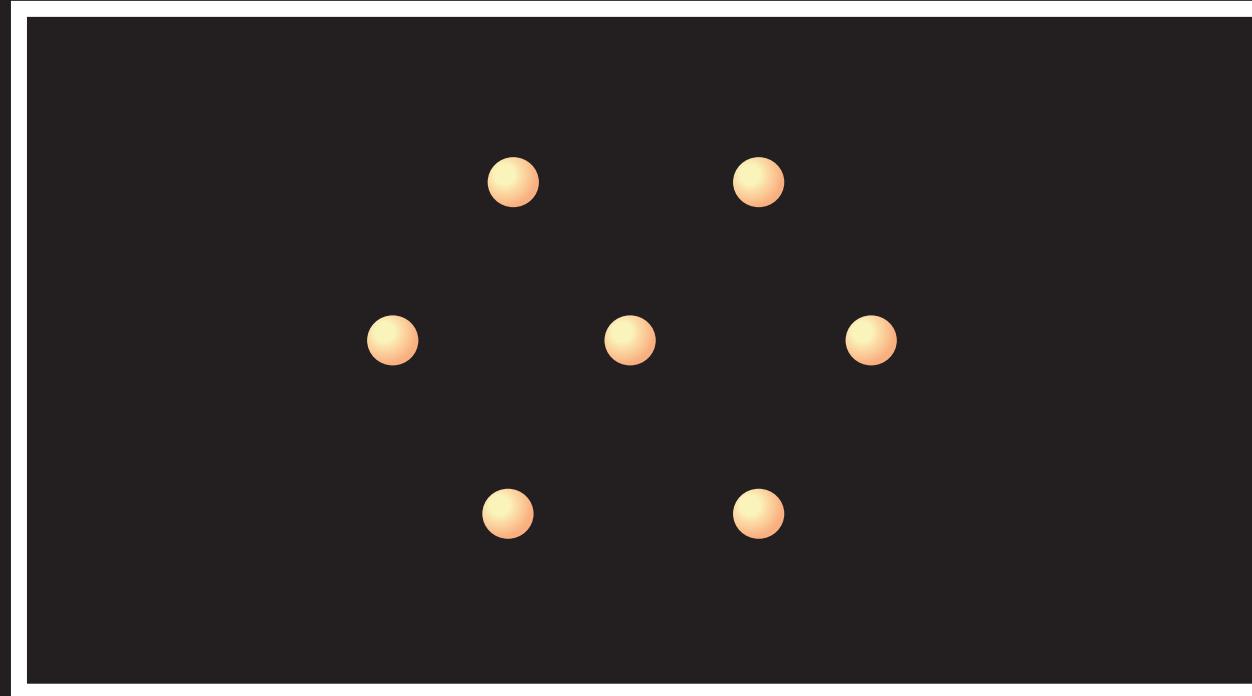


Cross-Sectional View

Menu



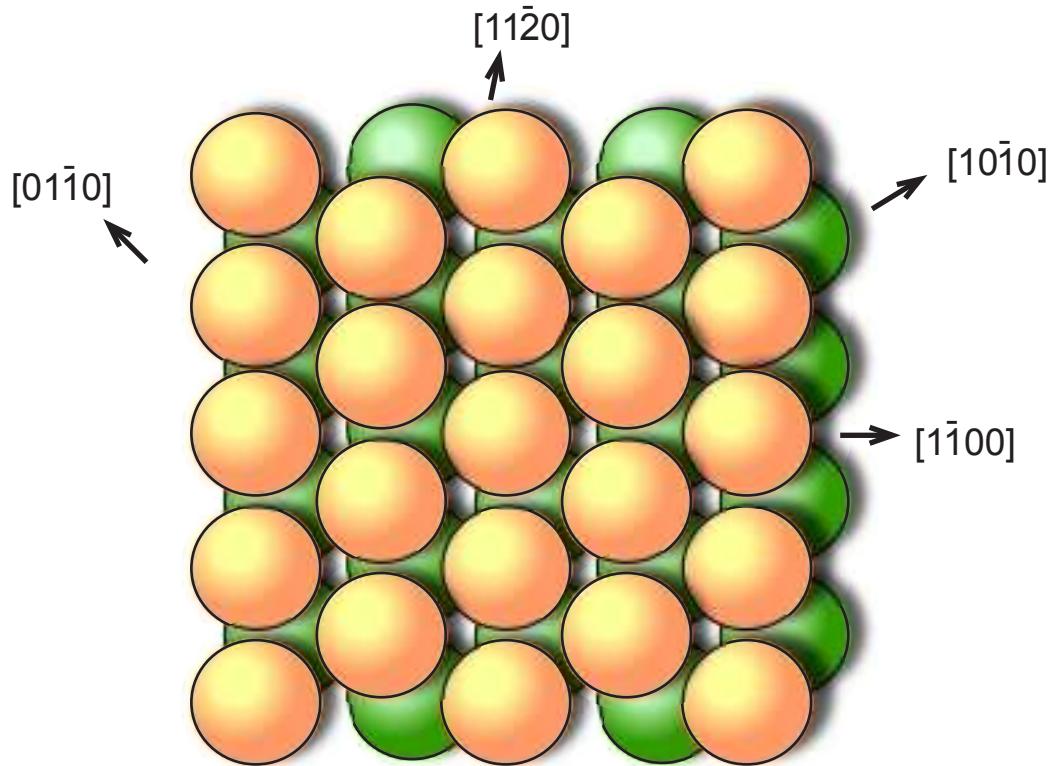
bcc(111)



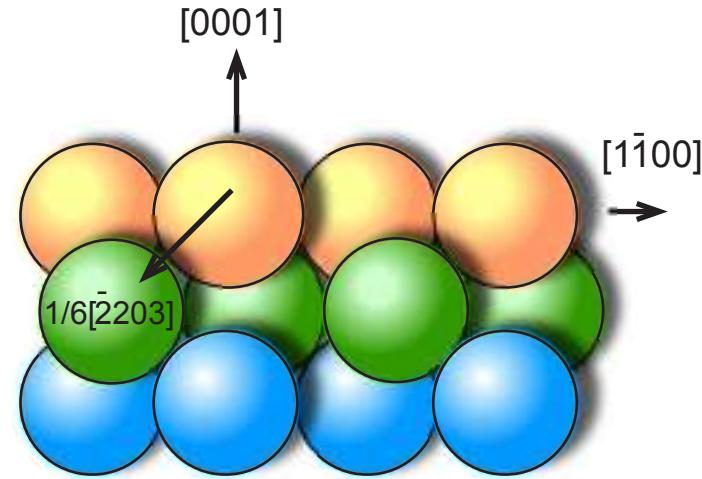
Diffraction Pattern

# hcp(0001) - Surface view

Diffraction Pattern →



$a$  = unit cell length

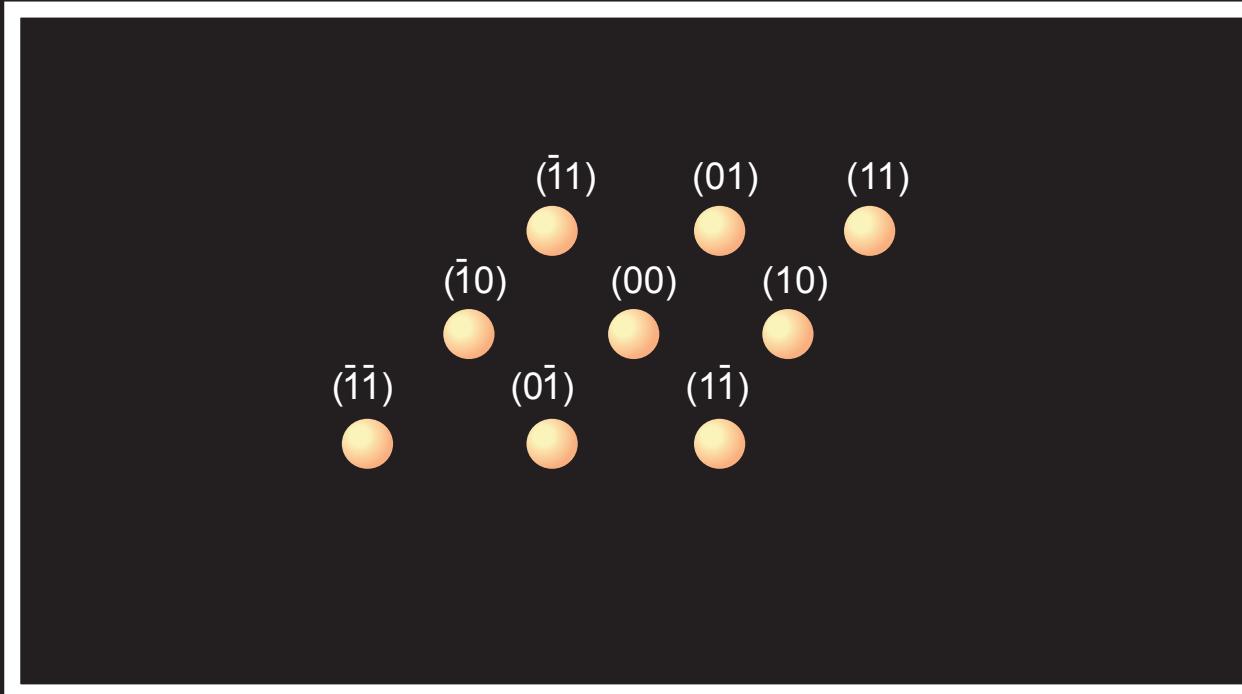


Cross-Sectional View

Menu



# hcp(0001)

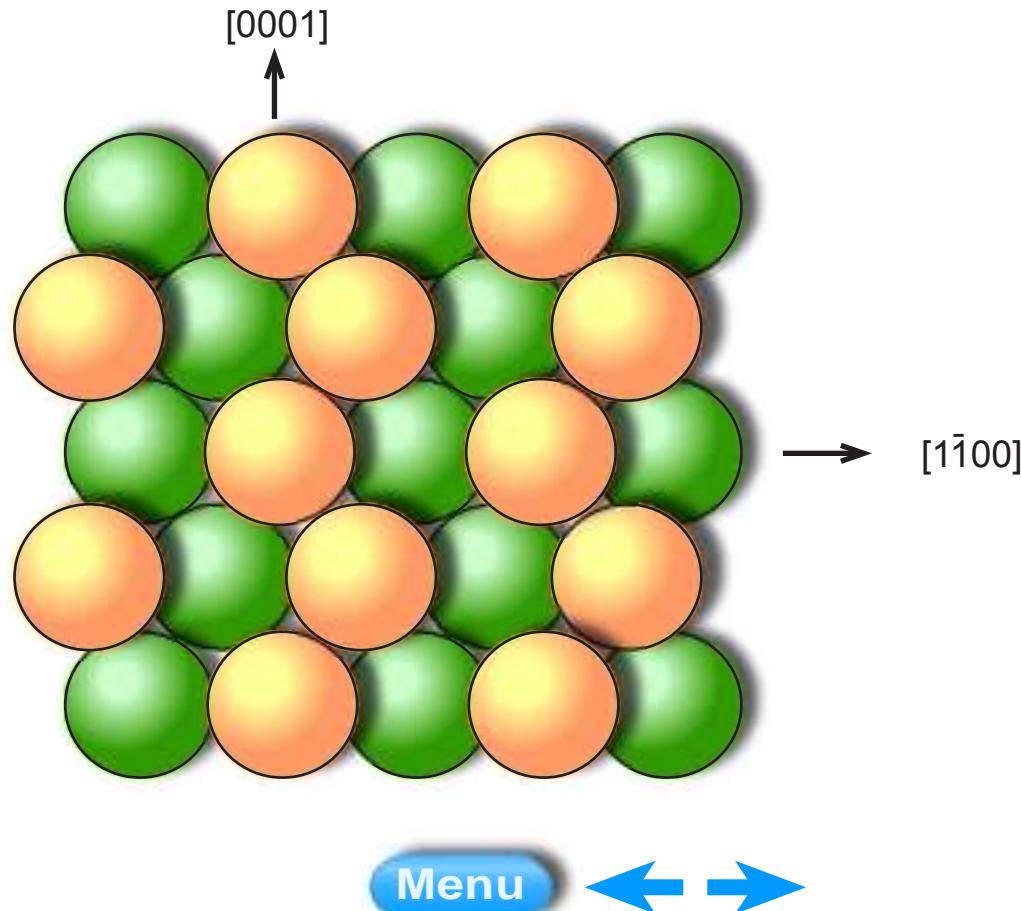


Diffraction Pattern

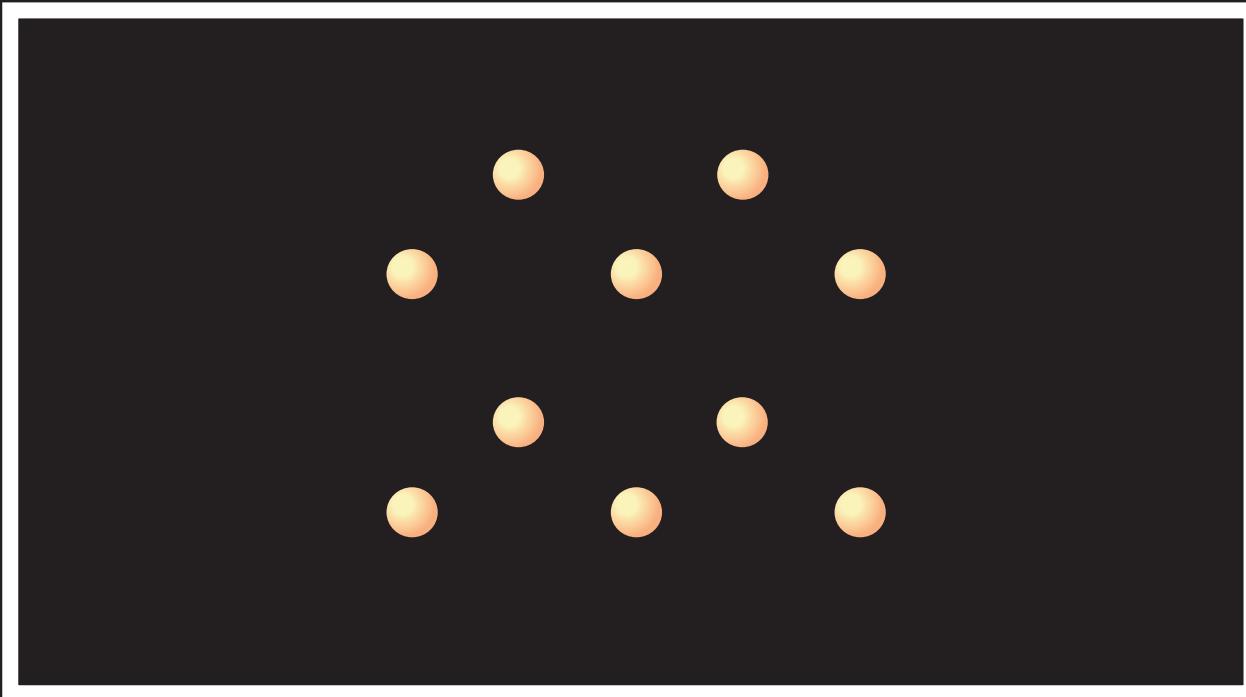
hcp(1 $\bar{1}$ 20)

Diffraction Pattern →

**a** = unit cell length



hcp(1120)

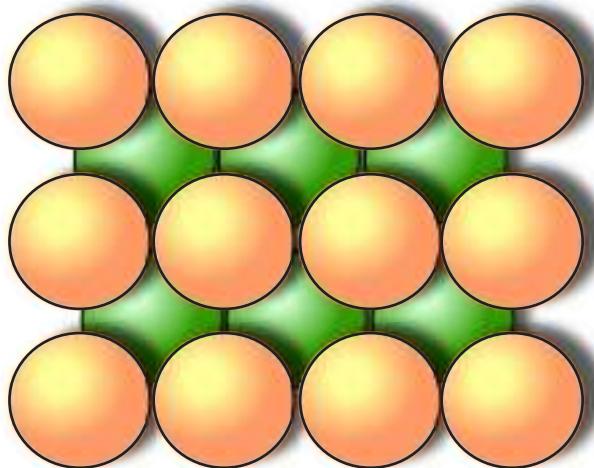


Diffraction Pattern

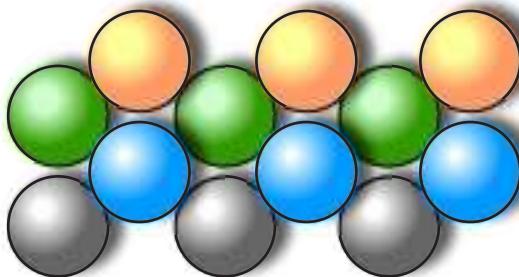
# hcp(10̄10) - Surface view

Diffraction Pattern →

**a** = unit cell length



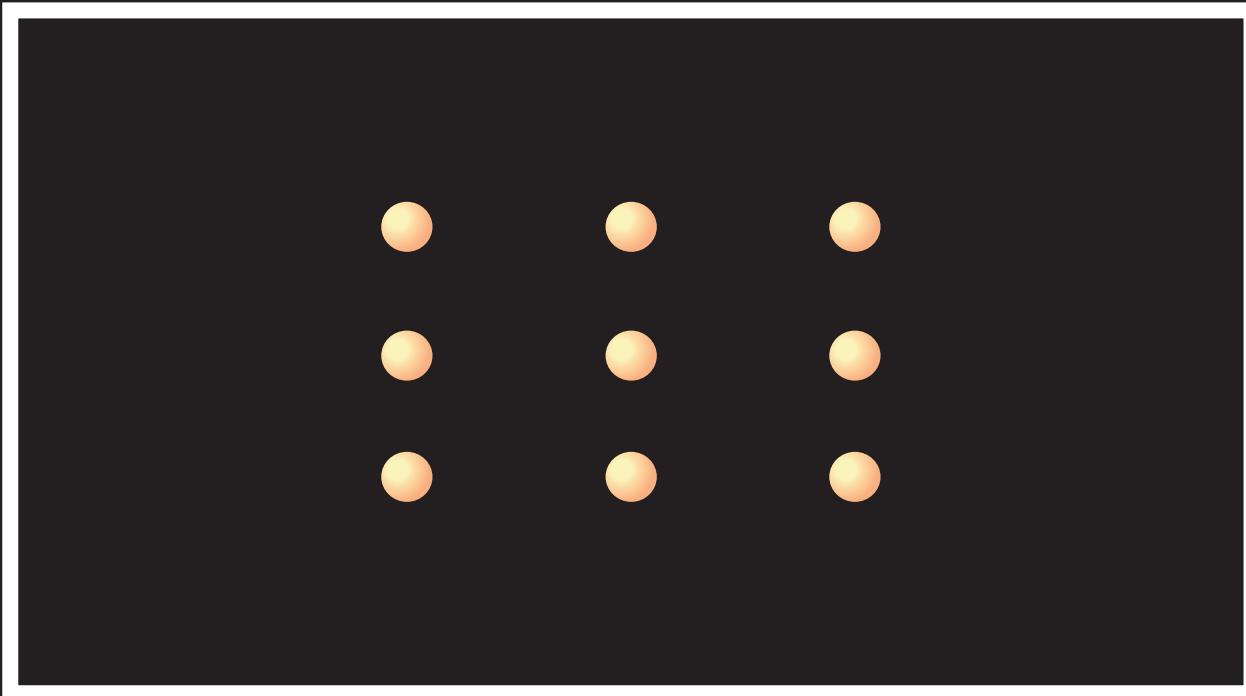
Cross-sectional view-



Menu

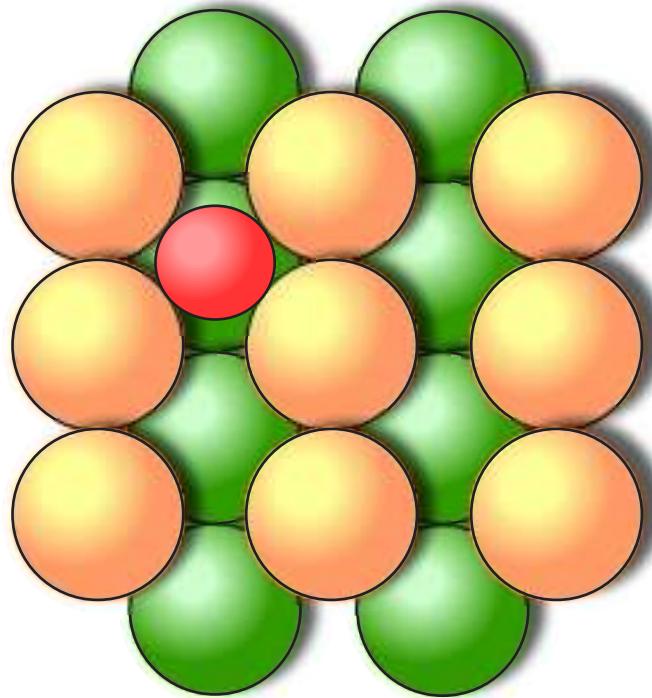


hcp(10̄10)

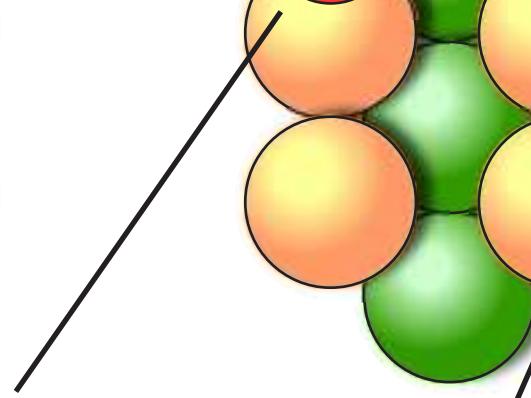


Diffraction Pattern

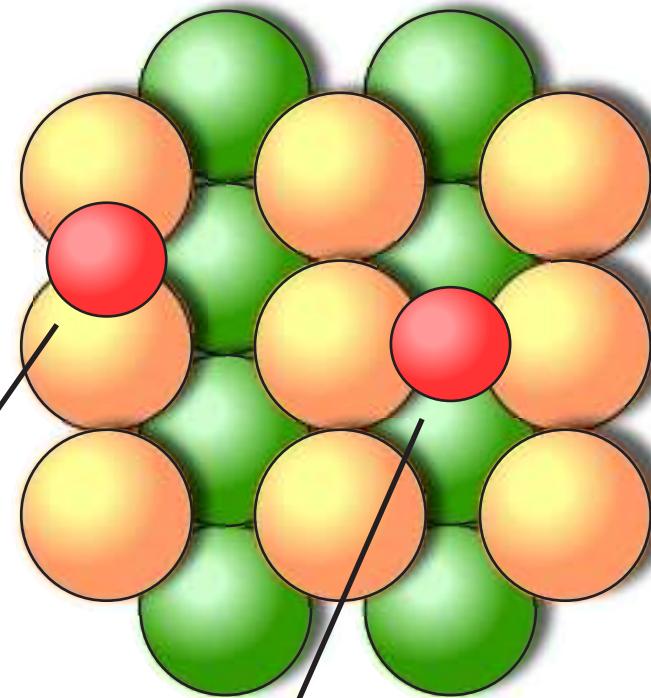
# fcc(110) - Overlayer Structures



fcc(110) + hollow adatom



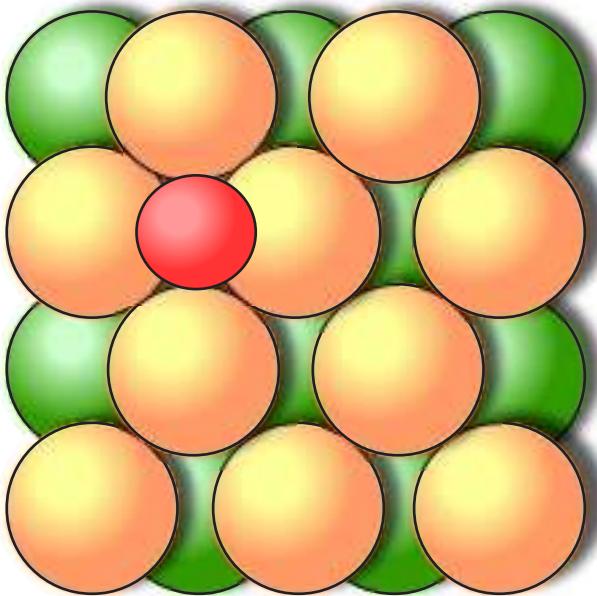
fcc(110) +  
short-bridge adatom



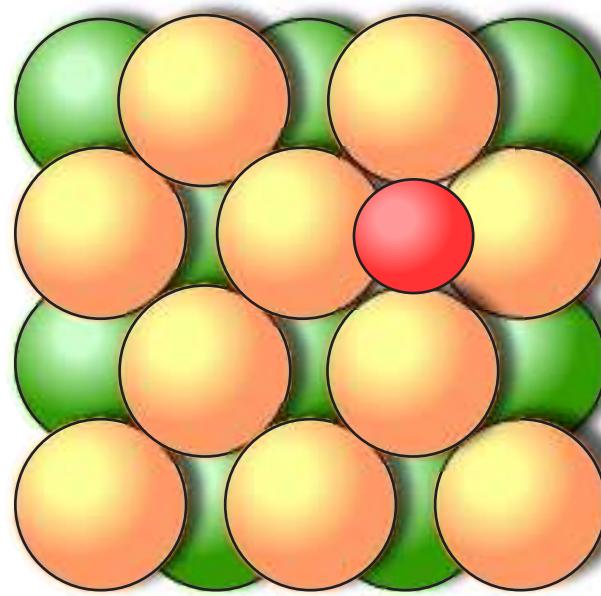
fcc(110) +  
long-bridge adatom

crystal face

# bcc(110) - Overlayer Structures



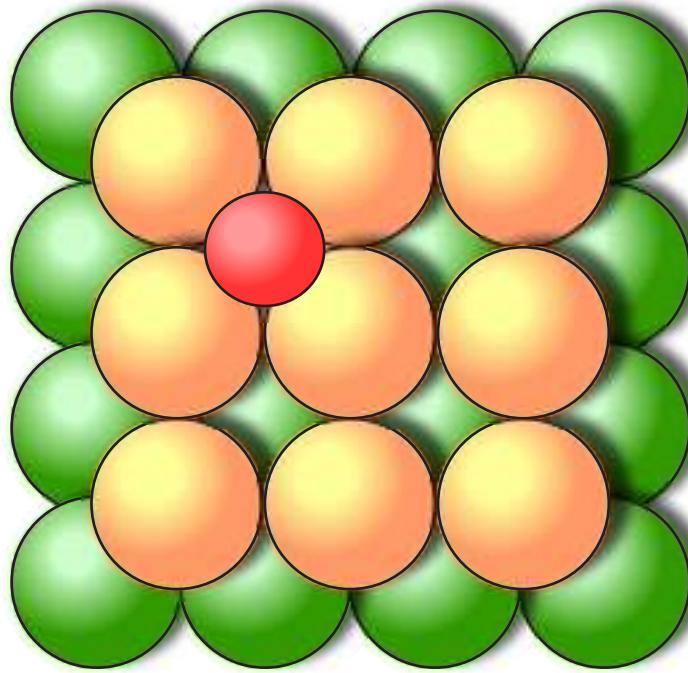
bcc(110) + 3-fold adatom



bcc(110) + centre adatom

crystal face

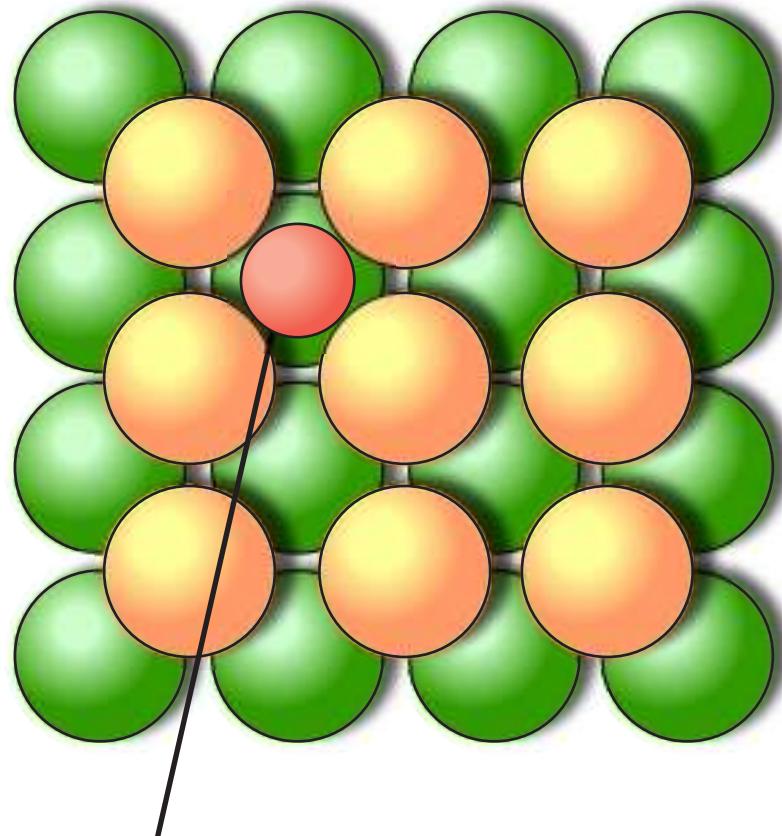
# fcc(100) - Overlayer Structures



fcc(100) + hollow adatom

crystal face

# bcc(100) - Overlayer Structures



bcc(100) + hollow adatom

crystal face