

EXAFS

Require some model complex

Type & primary coordination bond
to ~~to~~ metal center

Number & such coordination center

M-L & CN } Primary coordina-
→ distances } tion sphere

Nuclear Transitions

Isoener Shift

Iron (Complexes / Proteins)

Iodine, Ag, Pt

Fe metal (Fe^0) is the Standard.

NPTTEL

Quadrupolar nuclei

→ ~~Quad~~ Quadrupole Splitting
(QS)

Iron complexes Fe center

- Fe^{2+}
 - low spin
 - high spin
- Fe^{3+}
 - Low spin
 - High spin

Intermediate spin

NPTTEL


$$\text{Absorbance} = \epsilon \cdot C \cdot l$$

$\uparrow$ $\uparrow$ $\downarrow$
absorption coefficient concentration path length

Octahedral & Tetrahedral

d-d Transitions

Charge Transfer Transitions

NPTEL

apoprotein + Metal ion



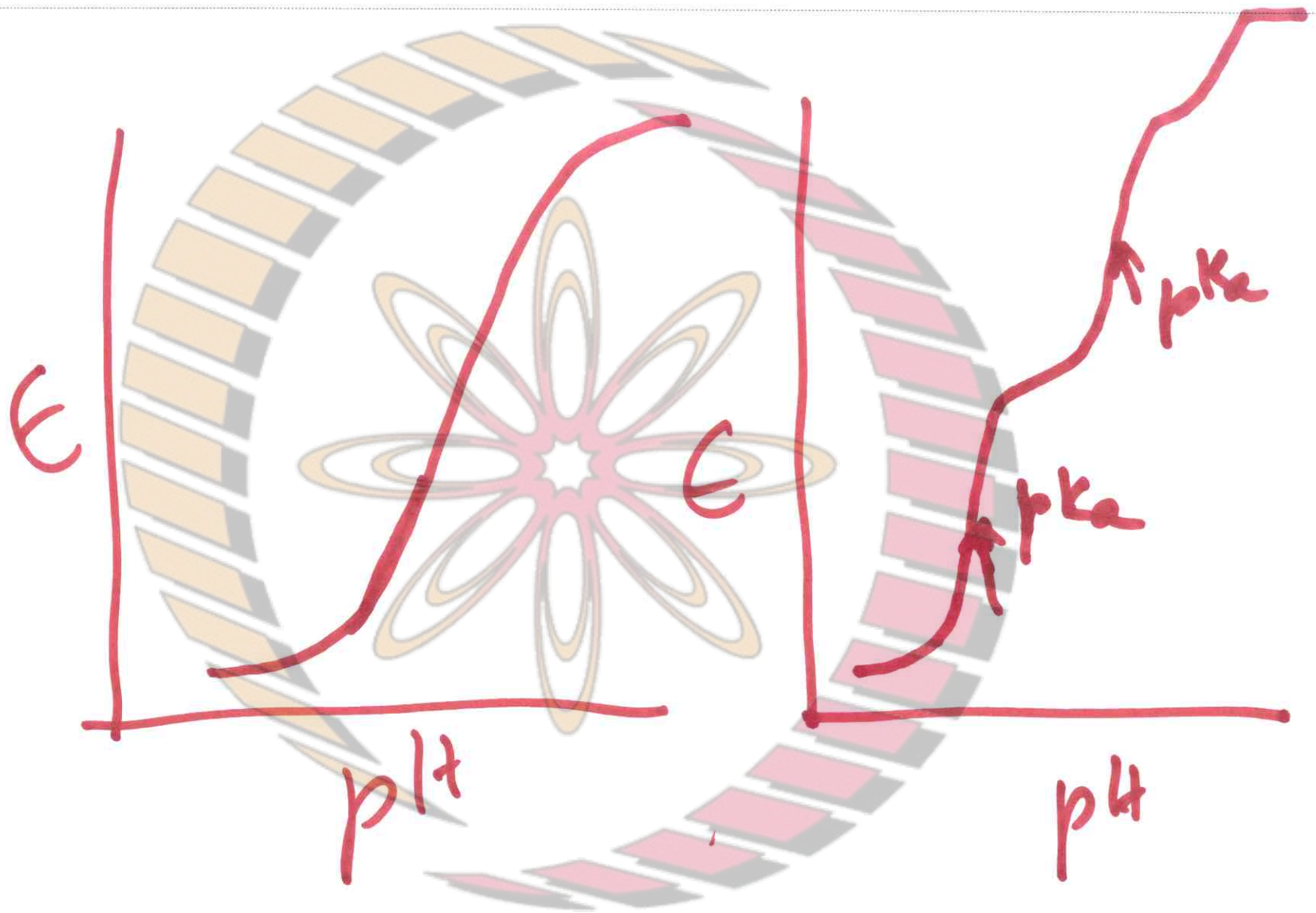
Metalloprotein



Td or Oh

primary coordination
case can be
determined.

NPTTEL



NPTTEL