

# Lecture 4; CH 101: Inorganic Chemistry

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# MO Diagram: $O_h$

## $O_h$ with $\sigma$ -donor Ligands

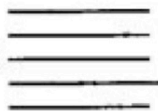
4p



4s



3d



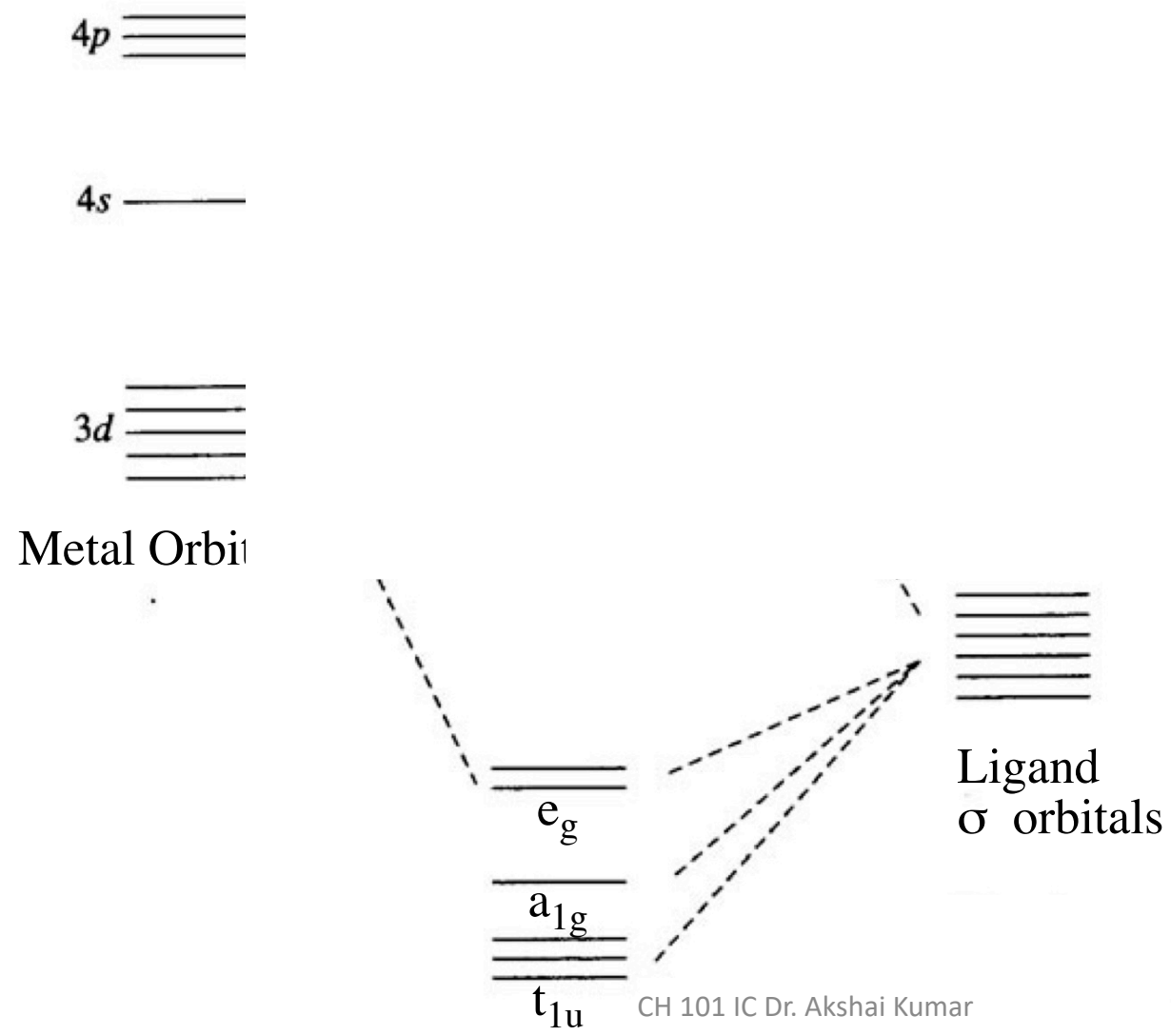
Metal Orbitals



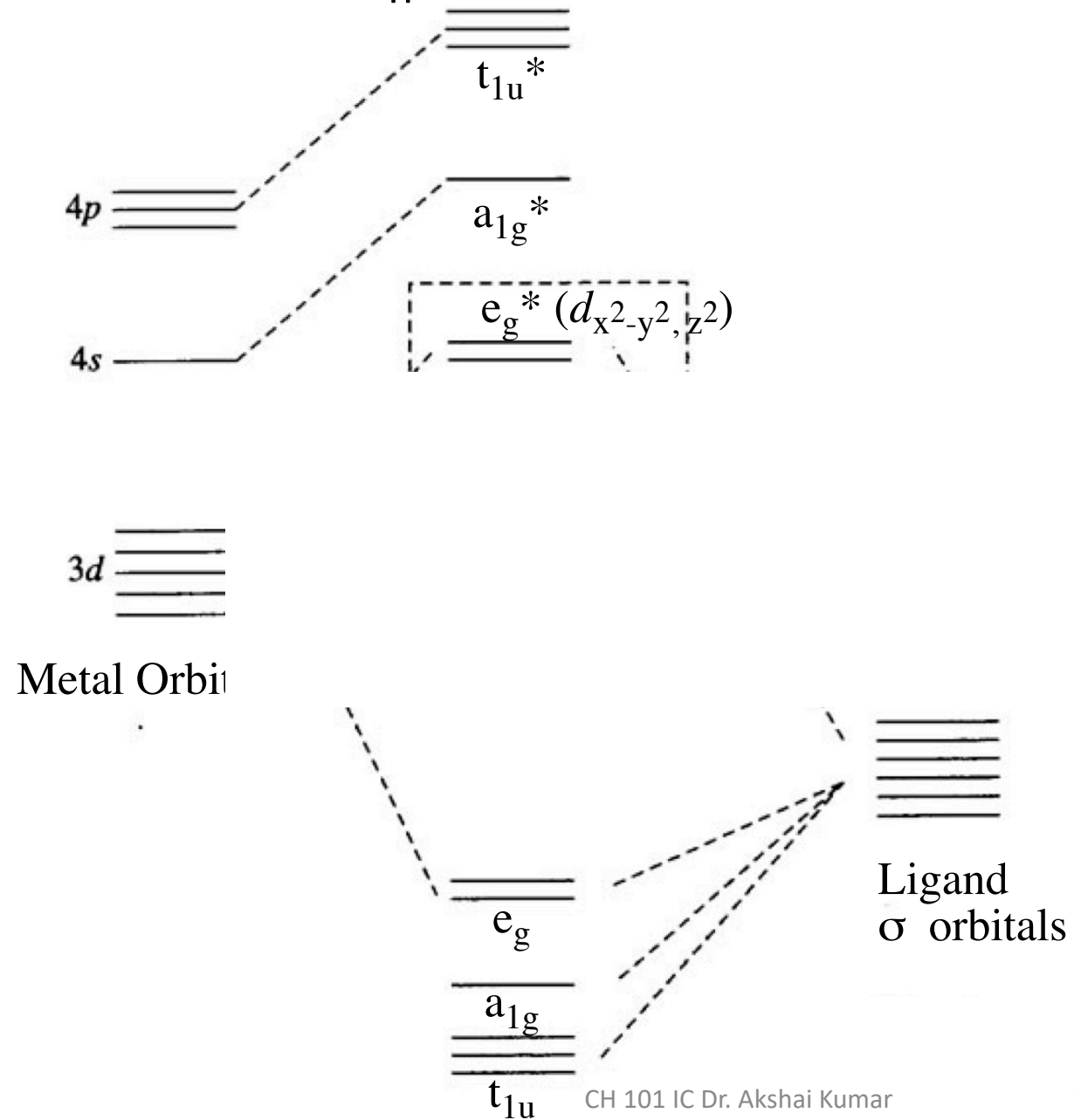
Ligand  
 $\sigma$  orbitals

MO Diagram:  $O_h$

$O_h$  with  $\sigma$ -donor Ligands

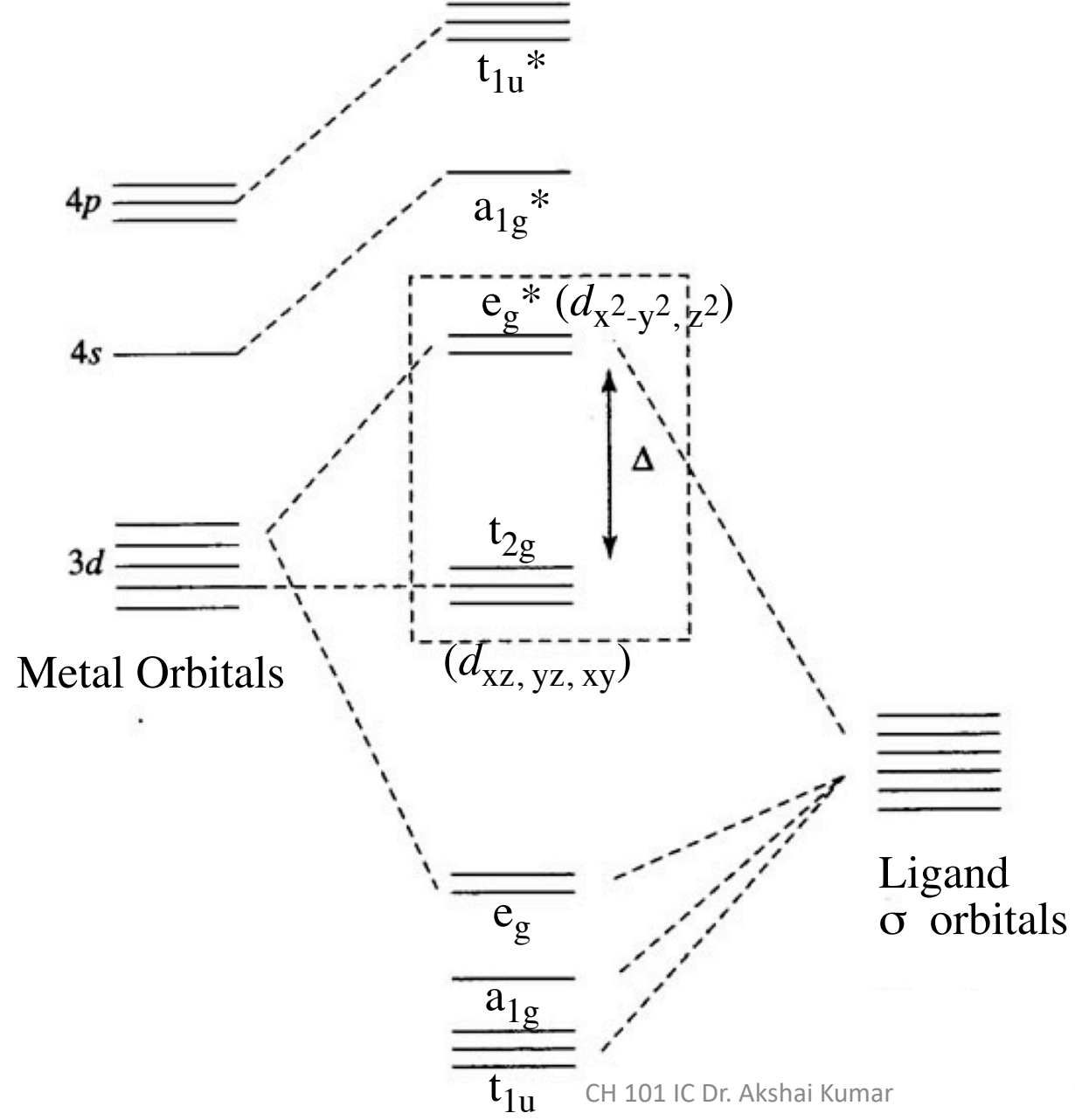


# MO Diagram: $O_h$ $O_h$ with $\sigma$ -donor Ligands

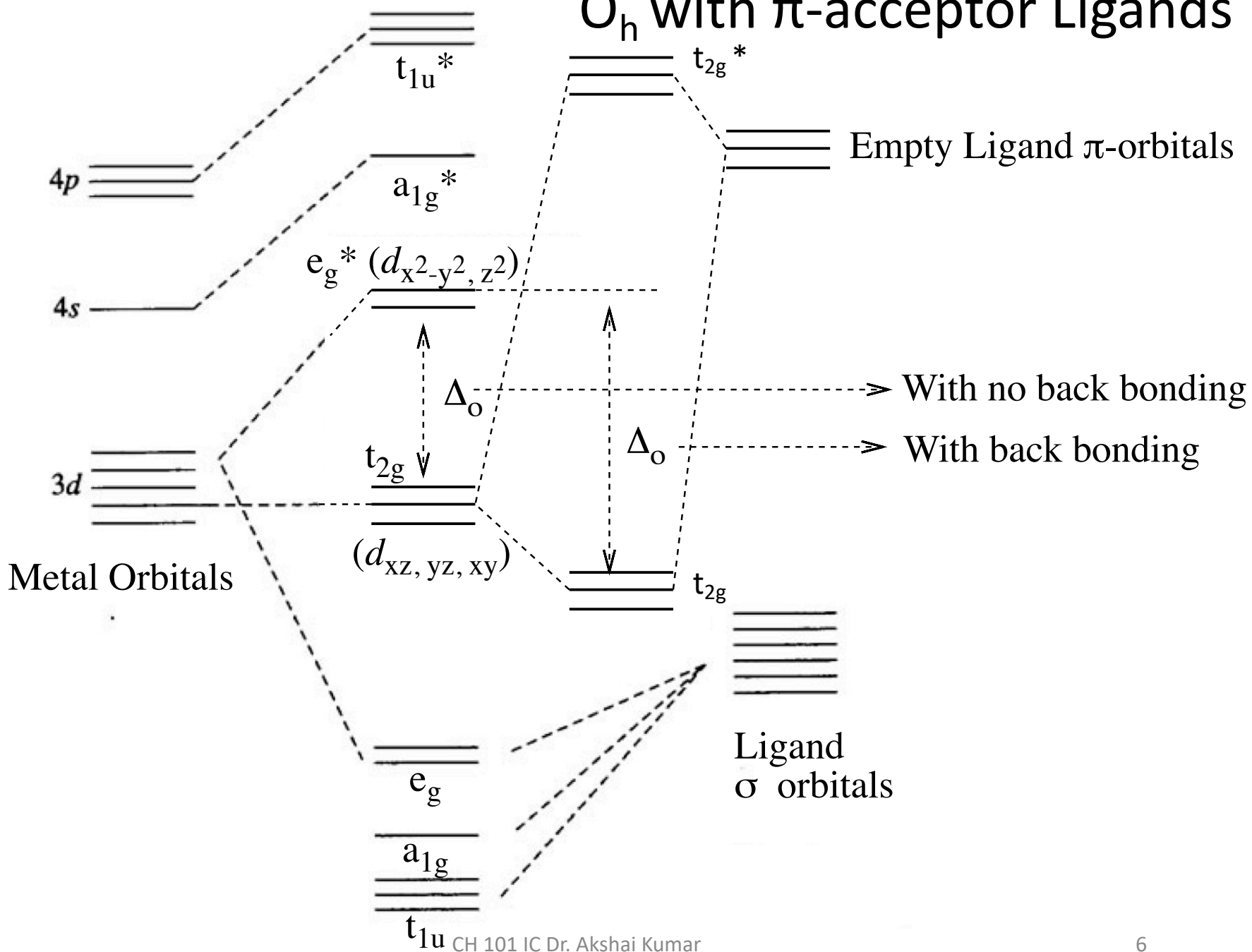


MO Diagram:  $O_h$

$O_h$  with  $\sigma$ -donor Ligands



# $O_h$ with $\pi$ -acceptor Ligands



# $O_h$ with $\pi$ -donor Ligands

