



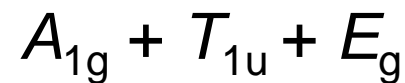
<i>O_h</i> (<i>m3m</i>)	<i>E</i>	8 <i>C</i> ₃	6 <i>C</i> ₂	6 <i>C</i> ₄	3 <i>C</i> ₂ (= <i>C</i> ₄ ²)	<i>i</i>	6 <i>S</i> ₄	8 <i>S</i> ₆	3σ _h	6σ _d	
A _{1g}	1	1	1	1	1	1	1	1	1	1	<i>x</i> ² + <i>y</i> ² + <i>z</i> ²
A _{2g}	1	1	-1	-1	1	1	-1	1	1	-1	
E _g	2	-1	0	0	2	2	0	-1	2	0	(2 <i>z</i> ² - <i>x</i> ² - <i>y</i> ² , √3 (<i>x</i> ² - <i>y</i> ²))
T _{1g}	3	0	-1	1	-1	3	1	0	-1	-1	(<i>R_x</i> , <i>R_y</i> , <i>R_z</i>)
T _{2g}	3	0	1	-1	-1	3	-1	0	-1	1	(<i>xy</i> , <i>xz</i> , <i>yz</i>)
A _{1u}	1	1	1	1	1	-1	-1	-1	-1	-1	
A _{2u}	1	1	-1	-1	1	-1	1	-1	-1	1	
E _u	2	-1	0	0	2	-2	0	1	-2	0	
T _{1u}	3	0	-1	1	-1	-3	-1	0	1	1	(<i>x</i> , <i>y</i> , <i>z</i>)
T _{2u}	3	0	1	-1	-1	-3	1	0	1	-1	

Molecole ipervalenti: SF₆ (gruppo O_h)

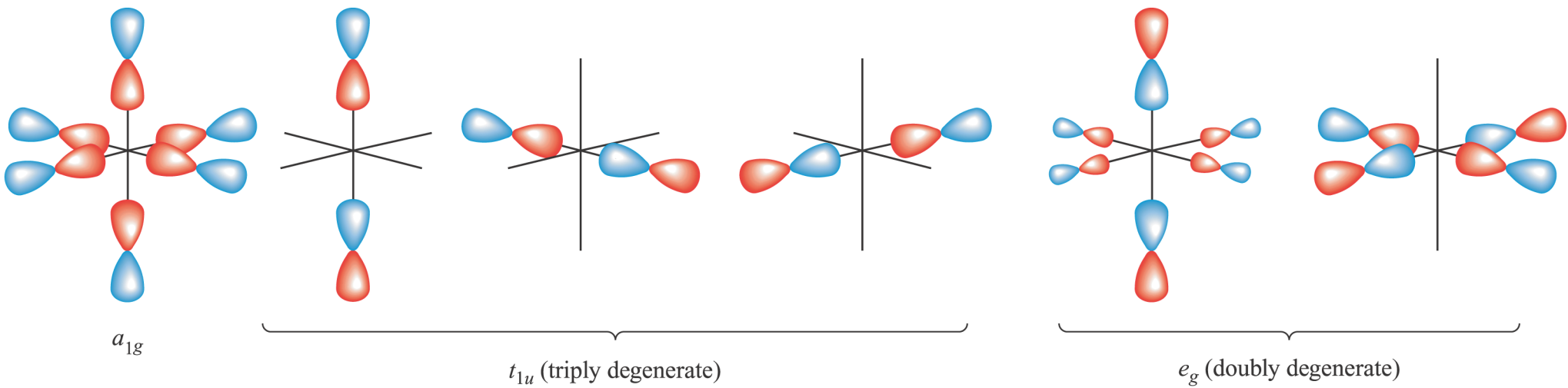
O _h	E	8C ₃	6C ₂	6C ₄	3C ₂ (= C ₄ ²)	i	6S ₄	8S ₆	3σ _h	6σ _d
A _{1g}	1	1	1	1	1	1	1	1	1	1
A _{2g}	1	1	-1	-1	1	1	-1	1	1	-1
E _g	2	-1	0	0	2	2	0	-1	2	0
T _{1g}	3	0	-1	1	-1	3	1	0	-1	-1
T _{2g}	3	0	1	-1	-1	3	-1	0	-1	1
A _{1u}	1	1	1	1	1	-1	-1	-1	-1	-1
A _{2u}	1	1	-1	-1	1	-1	1	-1	-1	1
E _u	2	-1	0	0	2	-2	0	1	-2	0
T _{1u}	3	0	-1	1	-1	-3	-1	0	1	1
T _{2u}	3	0	1	-1	-1	-3	1	0	1	-1

sei 2p_z radiali

E	8C ₃	6C ₂	6C ₄	3C ₂	i	6S ₄	8S ₆	3σ _h	6σ _d
6	0	0	2	2	0	0	0	4	2

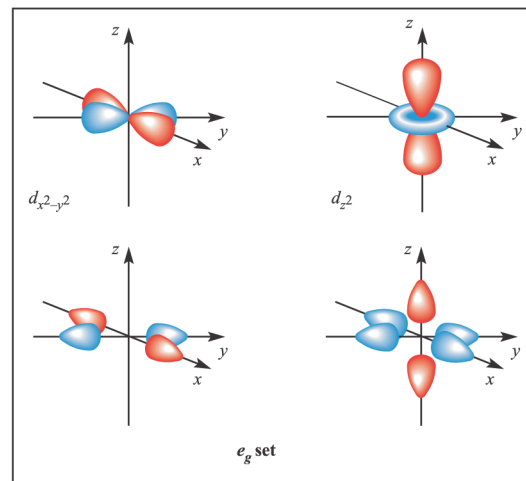
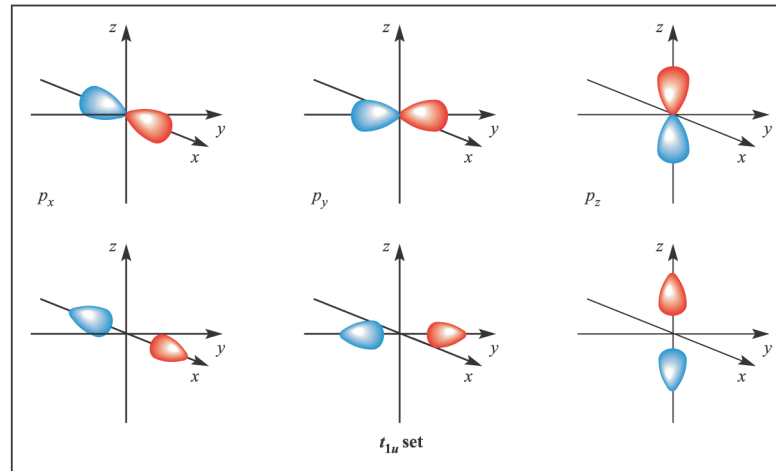
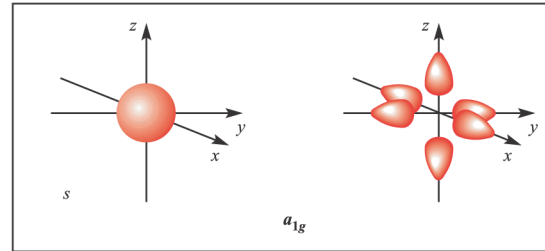


LGO del frammento F_6 in SF_6

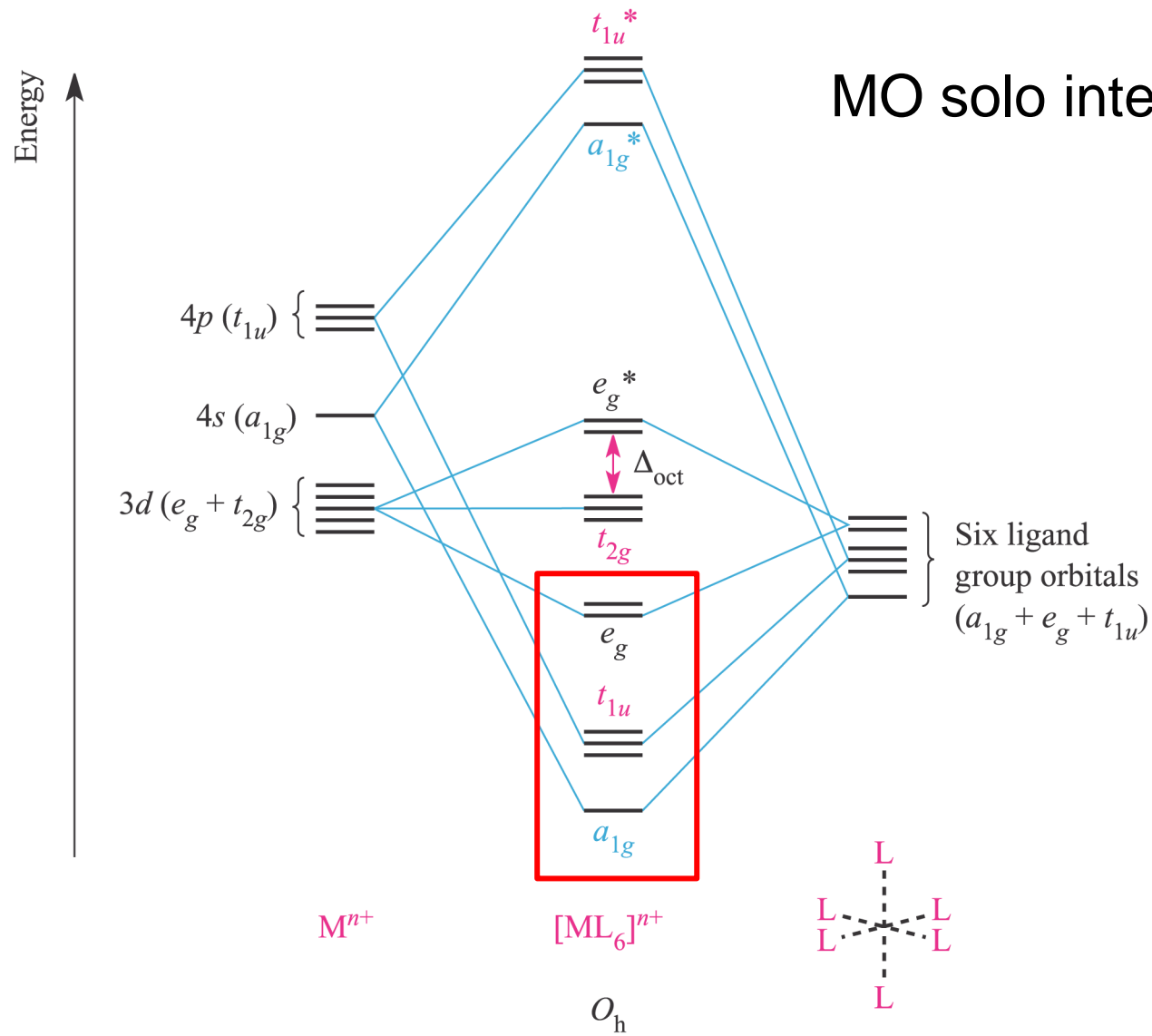


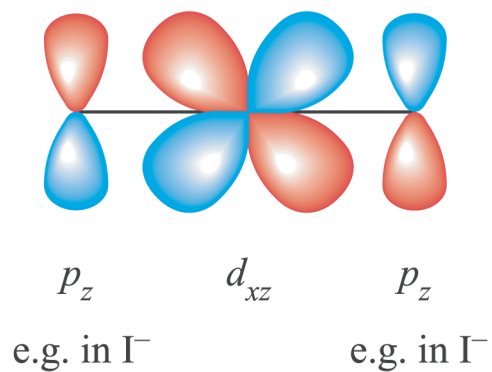
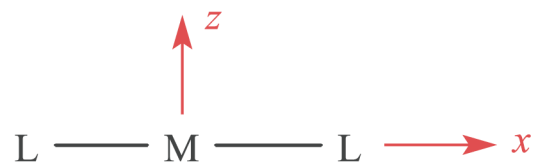
nonlegame

LGO di $[\text{Co}(\text{NH}_3)_6]^{3+}$



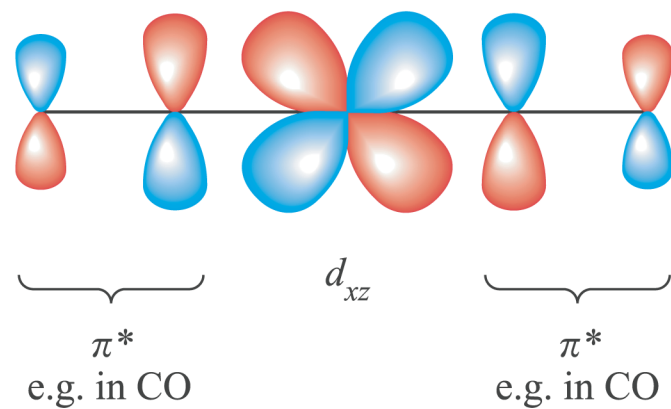
MO solo interazioni σ





(a)

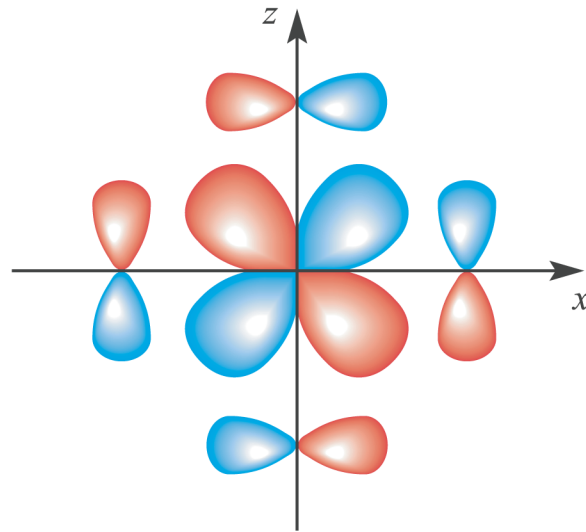
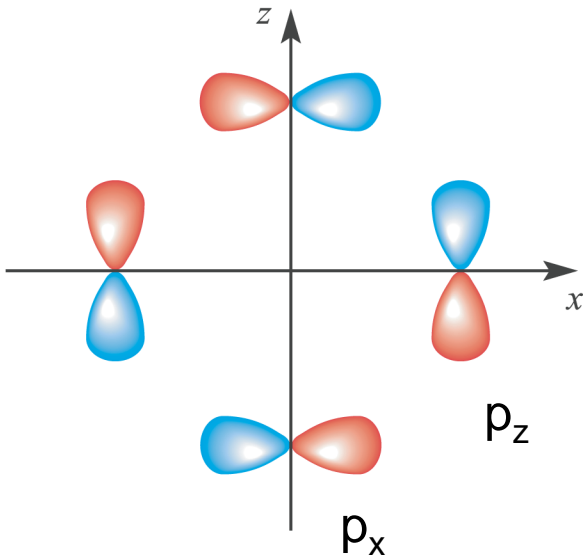
π -donatore



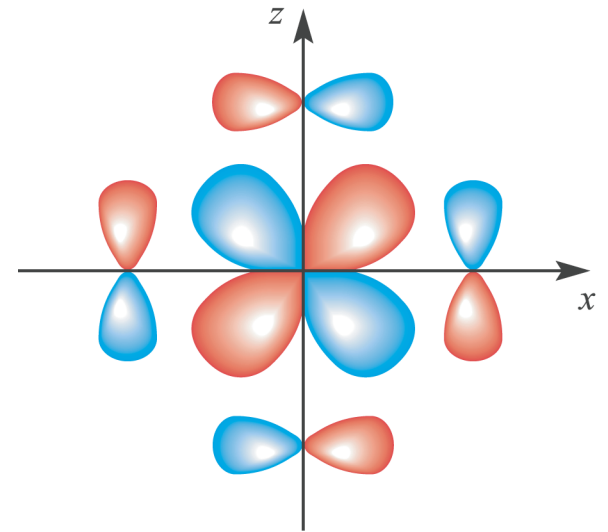
(b)

π -accettore

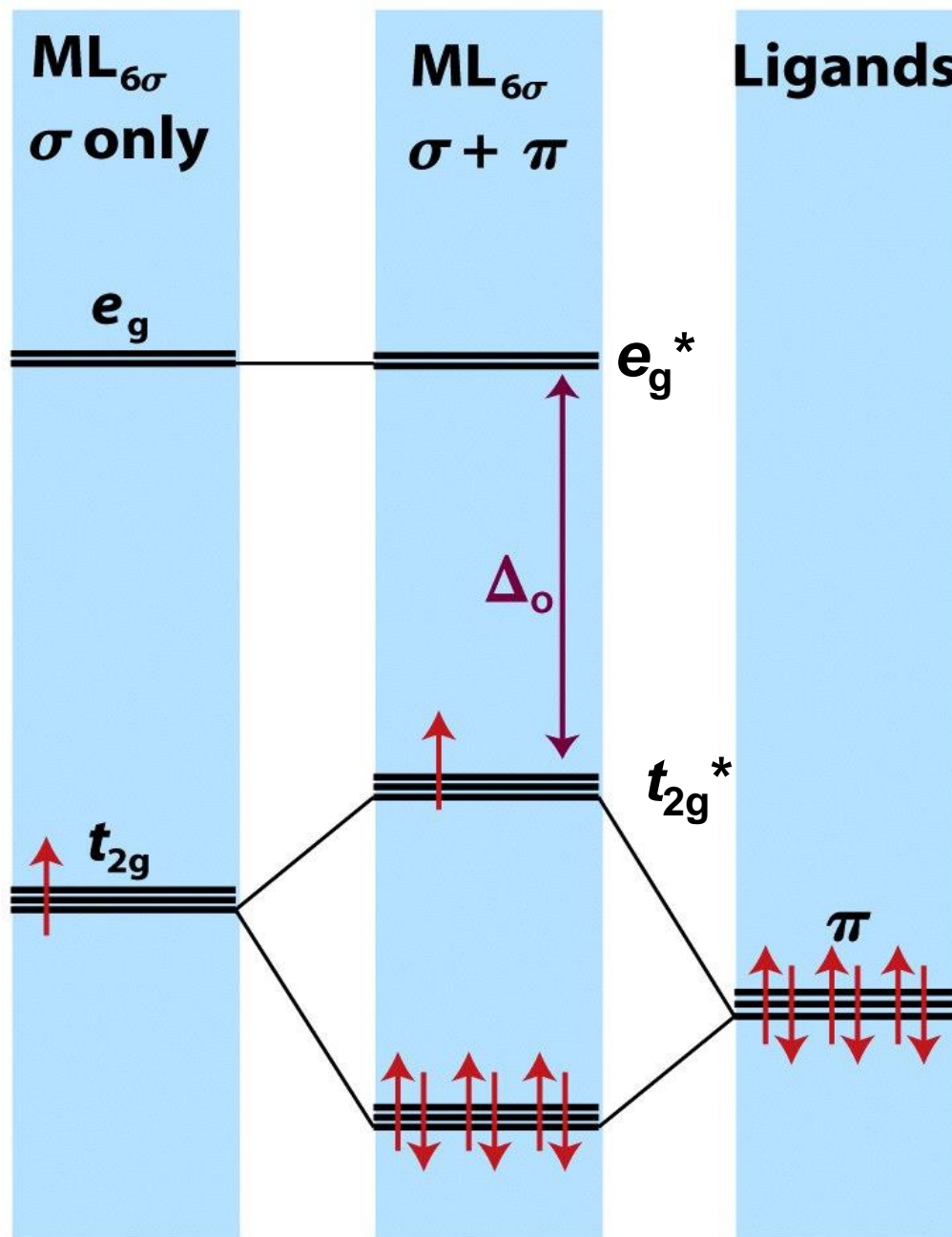
LGO π in un piano di un ottaedro



combinazione legante

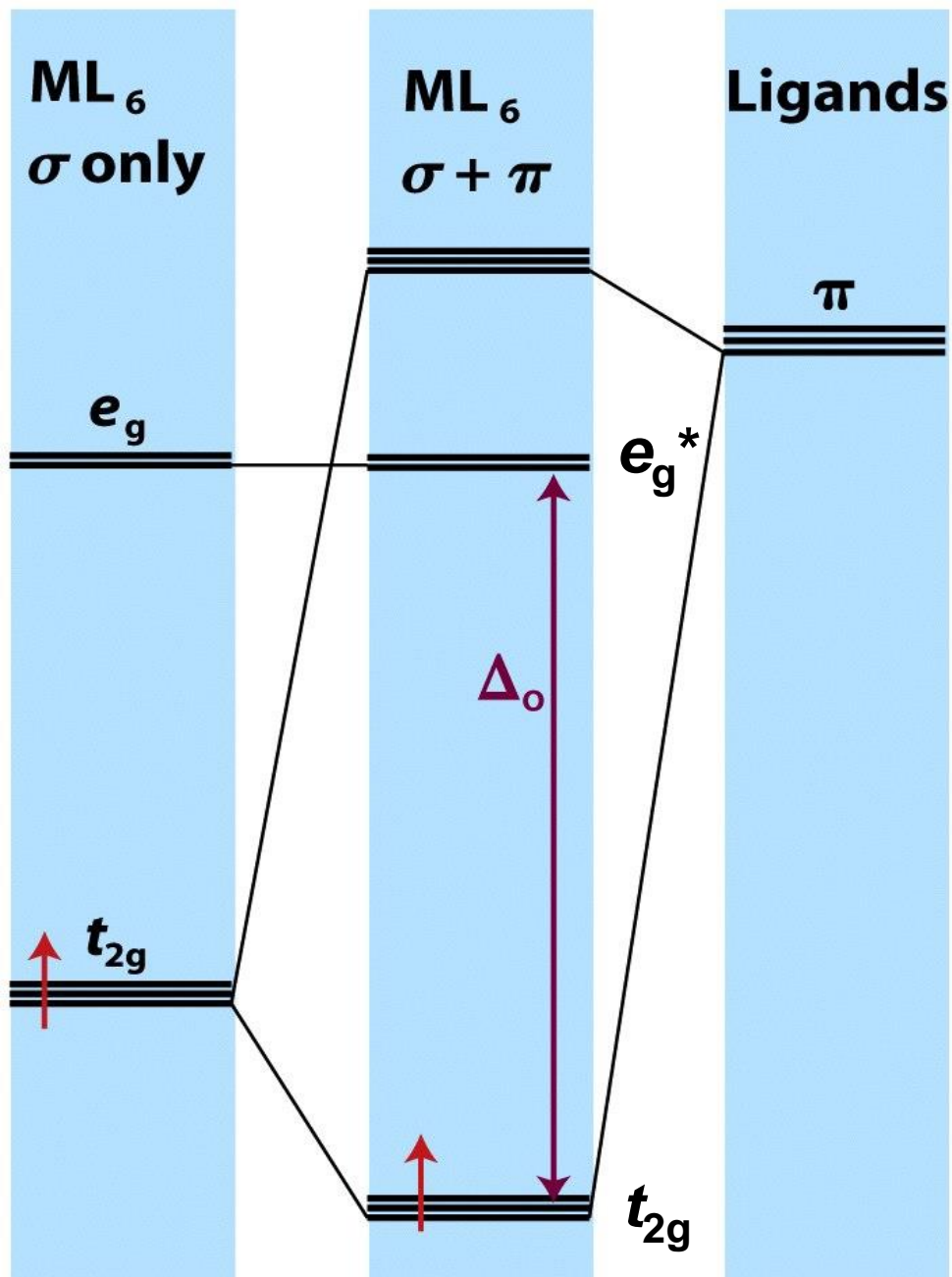


combinazione antilegante

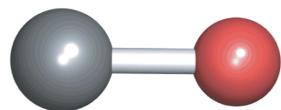
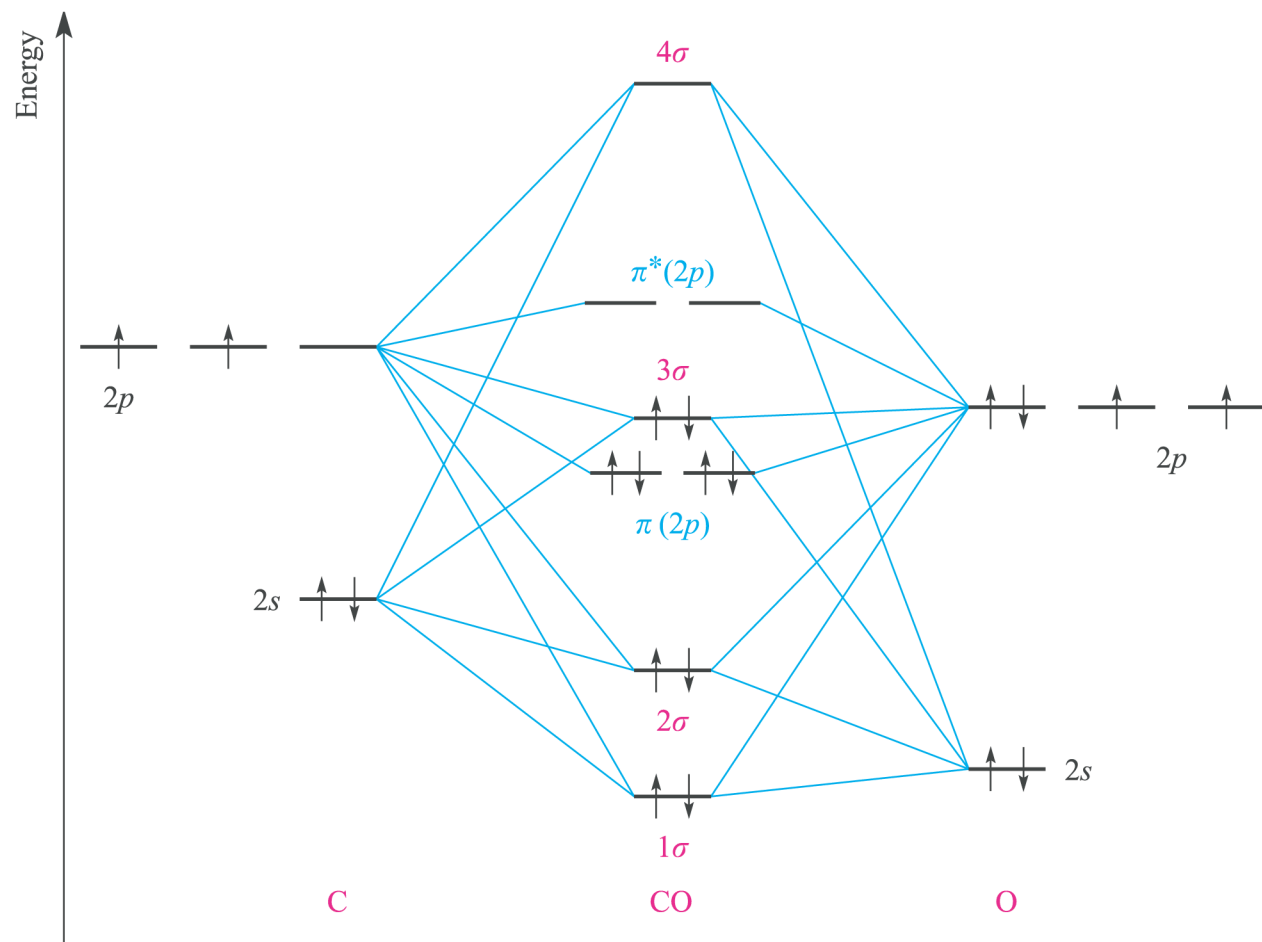


π -donatore
e.g. $[\text{CoF}_6]^{3-}$

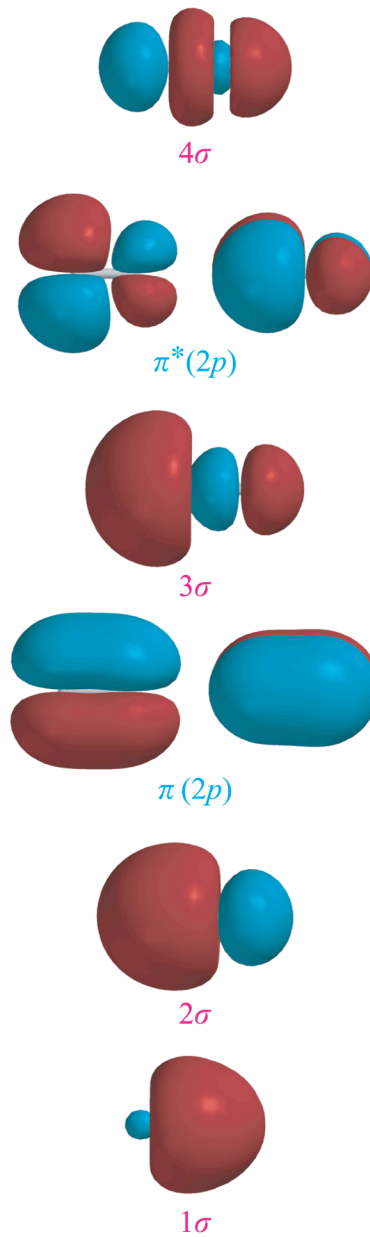
LGO t_{2g}

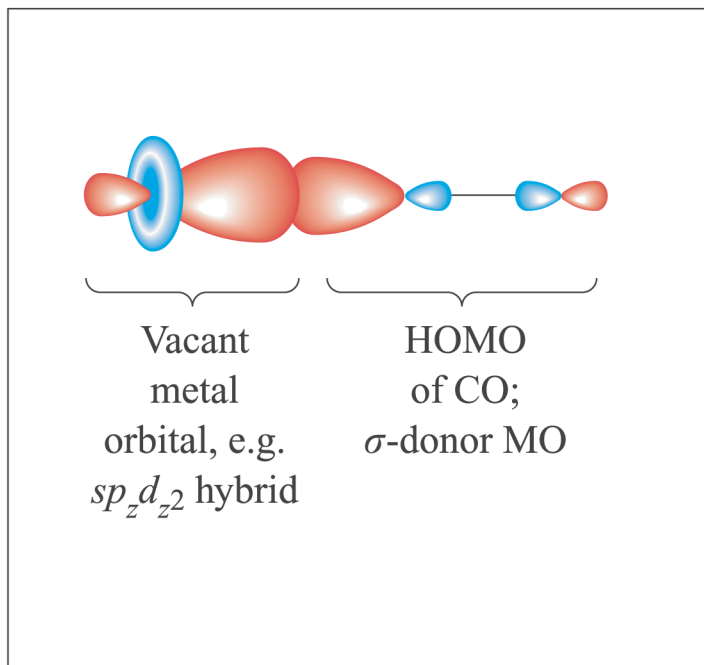
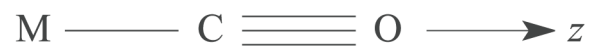


π -accettore

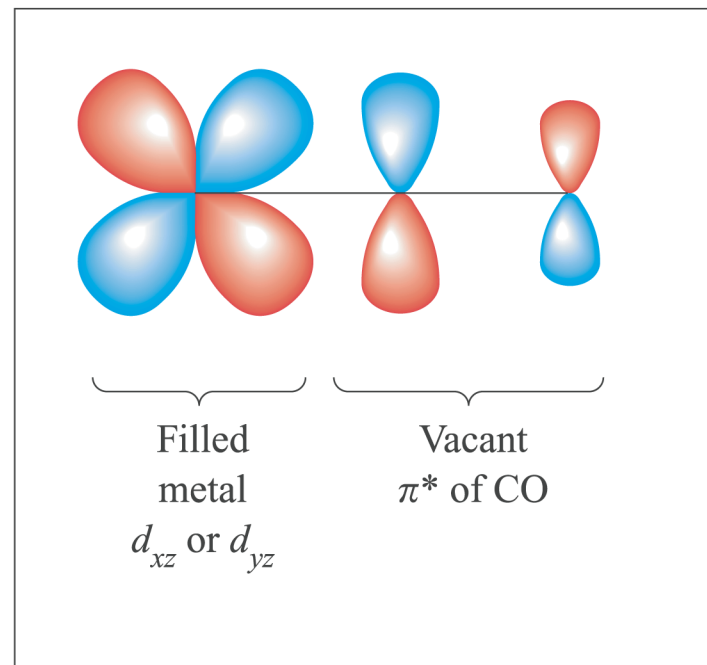


(b)



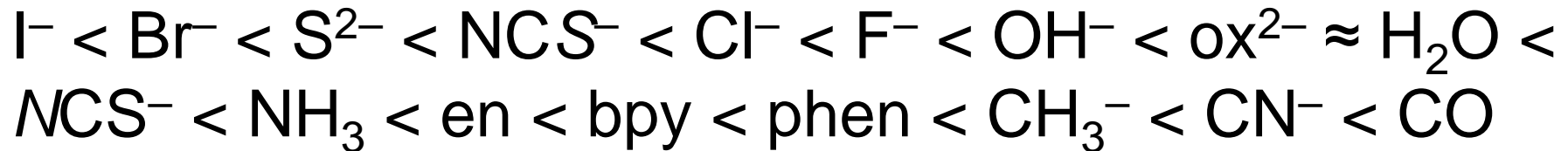


CO-to-M donation
(a)



M-to-CO back-donation
(b)

Serie spettrochimica dei leganti



Campo debole

Campo forte

π donatori < π donatori deboli < nessun contributo π < π accettori