

# Simmetria e Chimica

## Simmetria

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DI TRIESTE



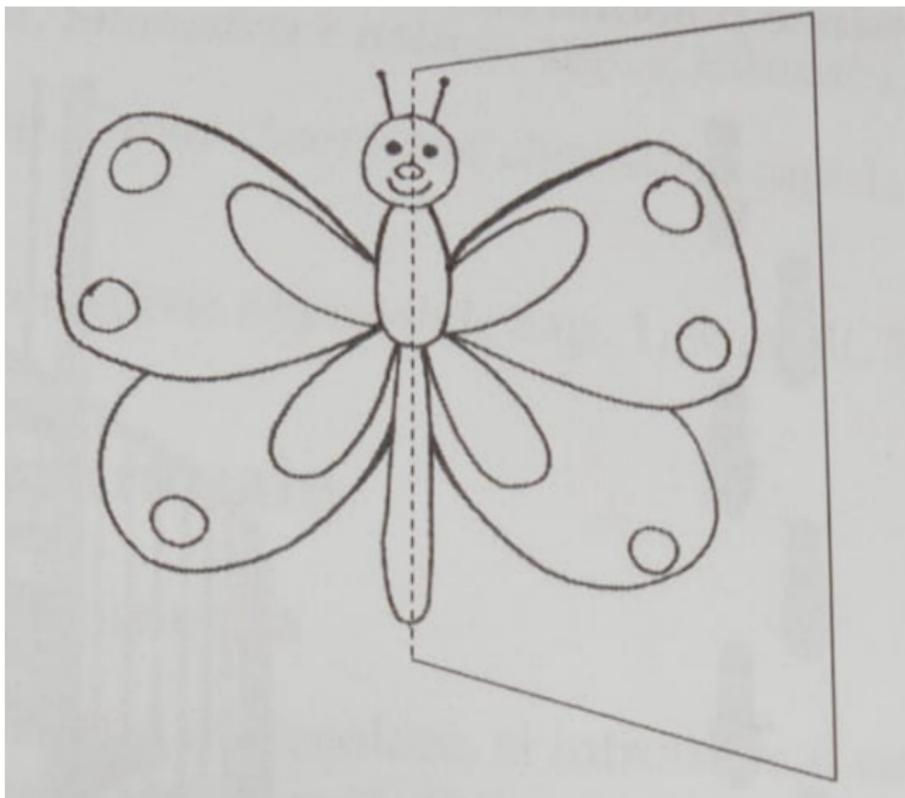
**DSCF**

Dipartimento di  
**Scienze Chimiche  
e Farmaceutiche**

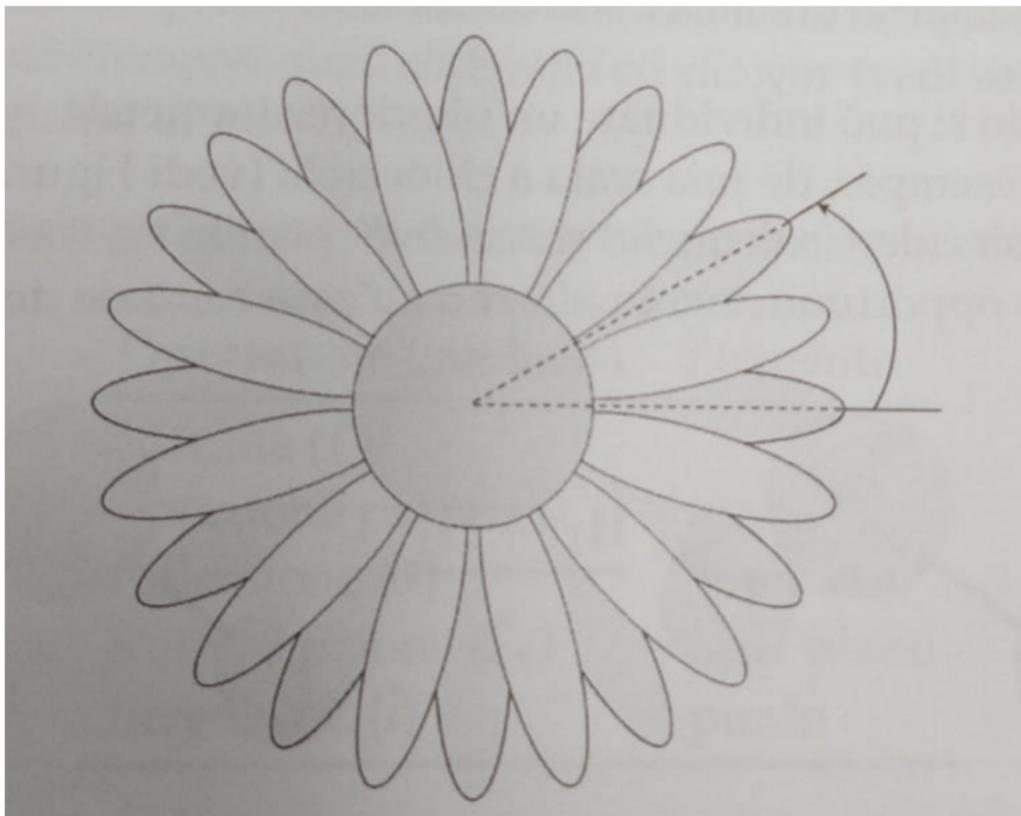
PhotoInduced Quantum Dynamics (PIQD) Unit



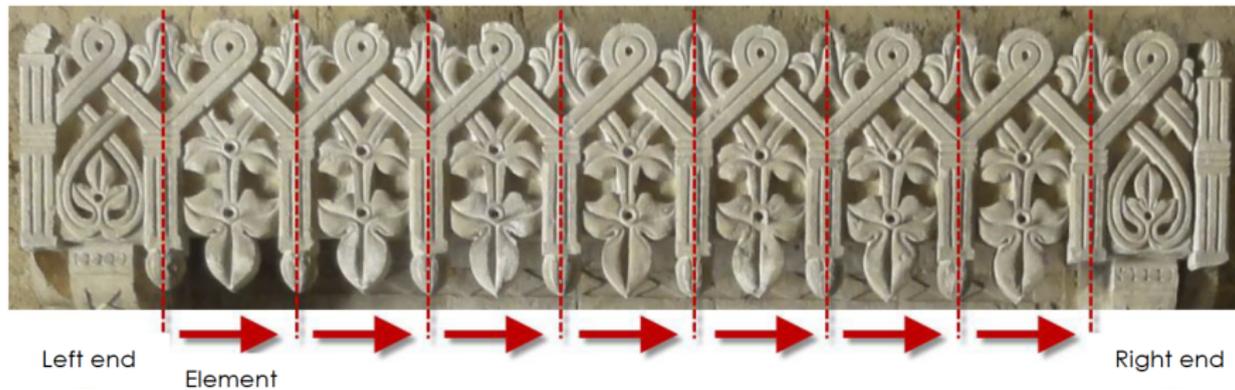
# Mirror symmetry



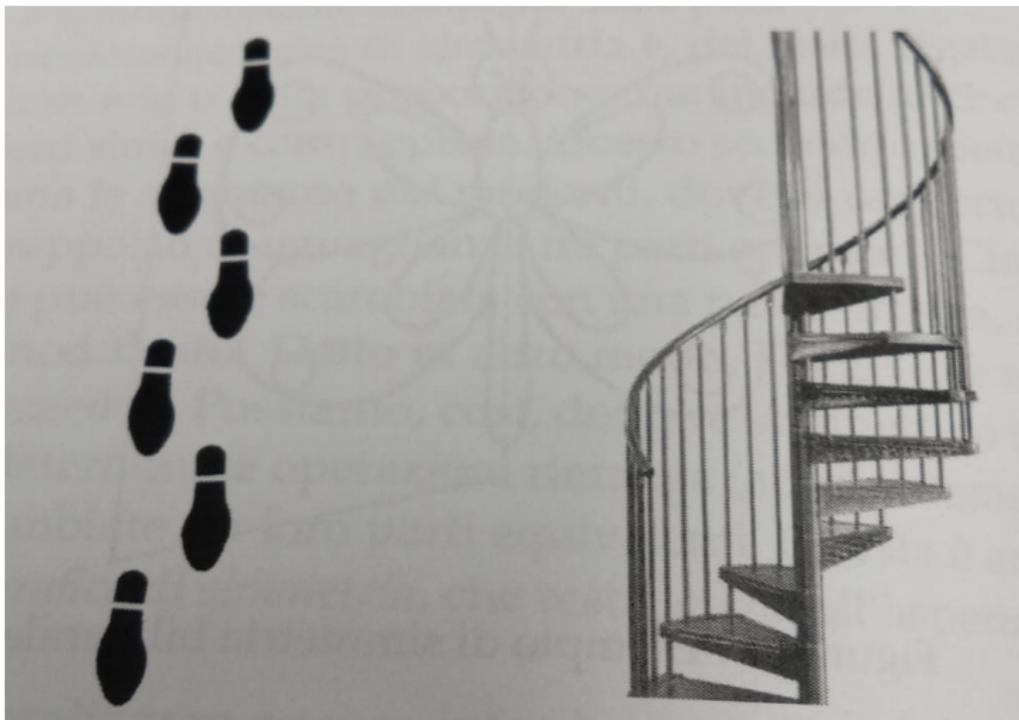
# Rotational symmetry



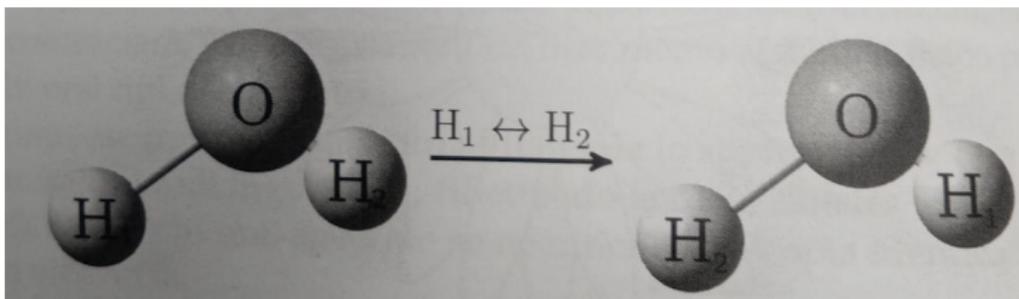
# Translational symmetry



# Glide and helical symmetry



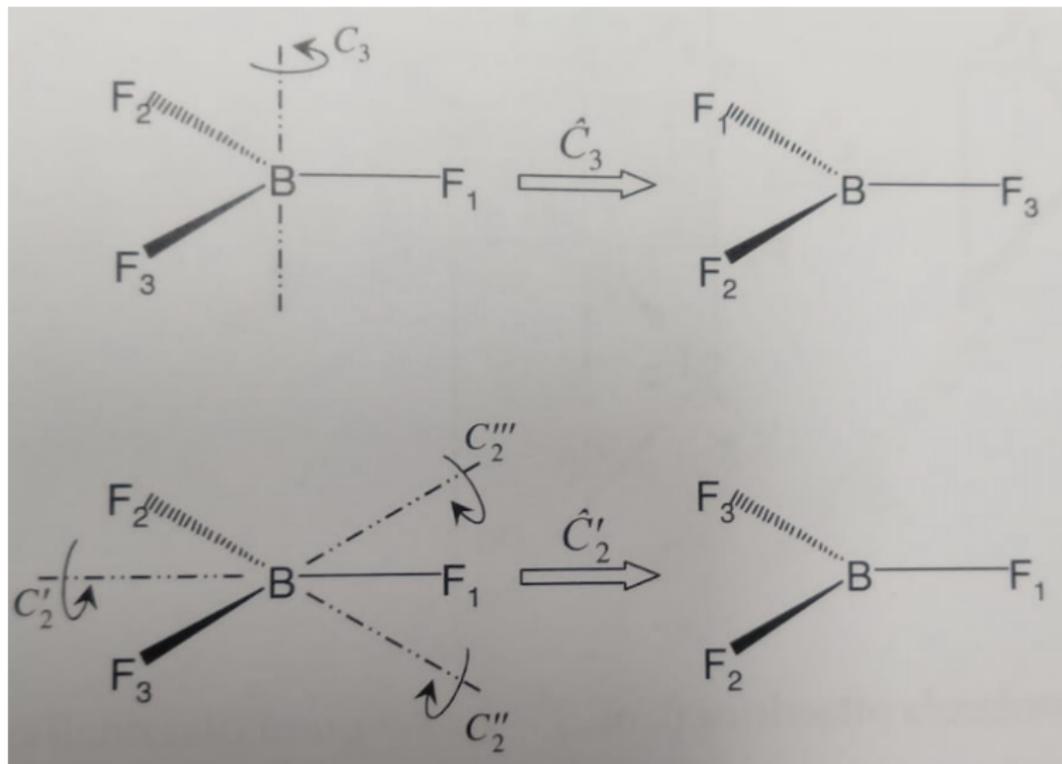
# Permutation symmetry



# Point symmetry operations and elements

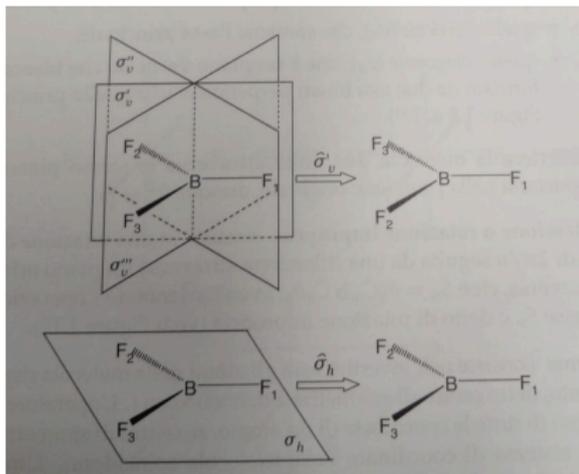
<b>Operation (symbol)</b>	<b>Element</b>
Identity ( $\hat{E}$ )	-
Proper rotation ( $\hat{C}_n$ )	axis
Reflection ( $\hat{\sigma}$ )	plane
Rotoreflexion ( $\hat{S}_n$ )	axis/plane
Inversion ( $\hat{i}$ )	point

# Proper rotation

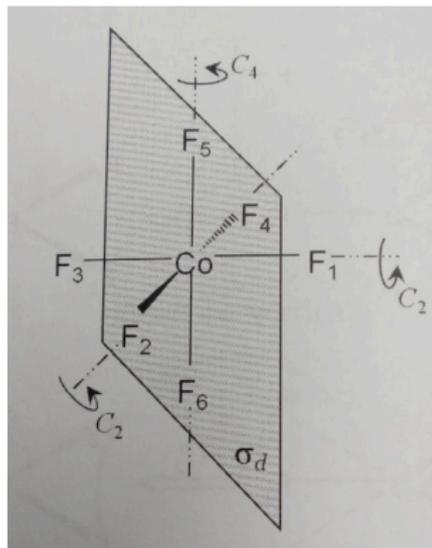


# Reflection

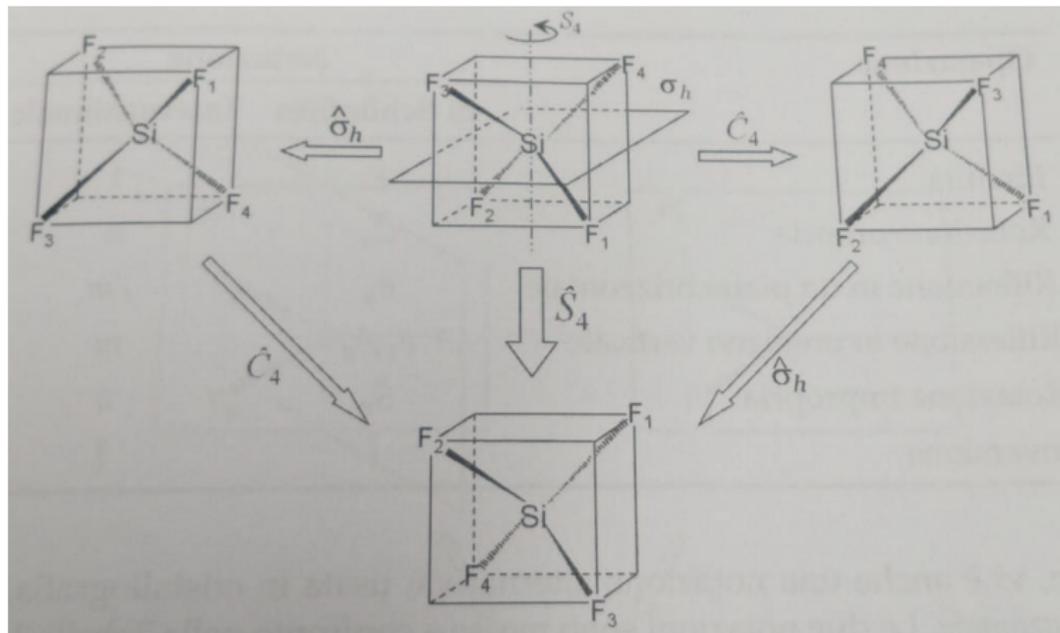
**BF<sub>3</sub>**



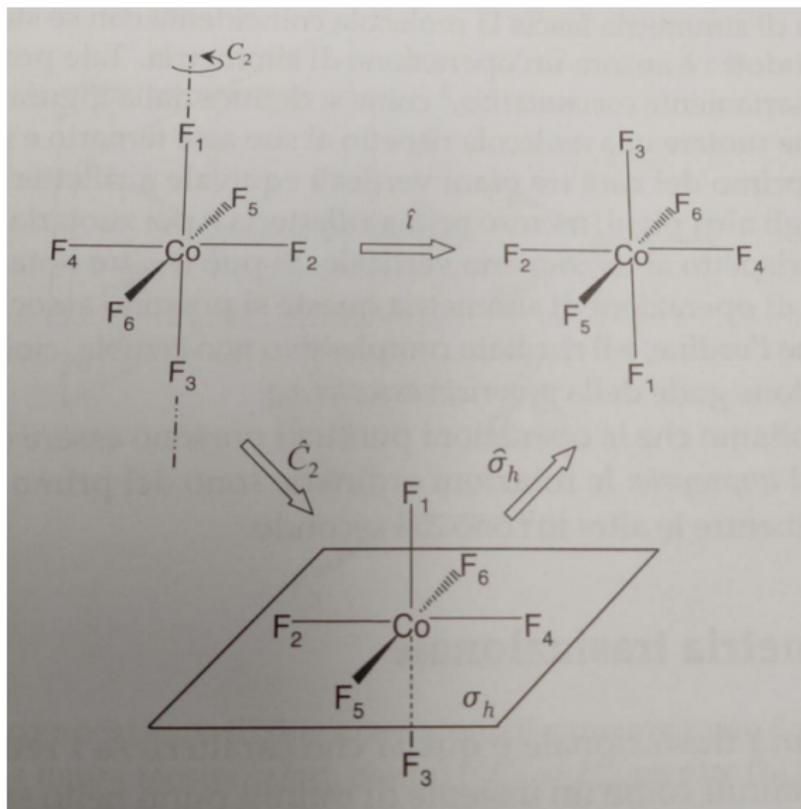
**(CoFe<sub>6</sub>)<sup>3-</sup>**



# Rotoreflexion



# Inversion



# Commutative property

