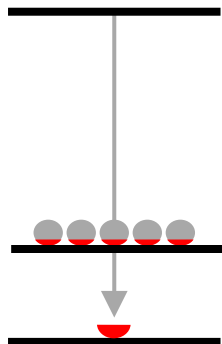
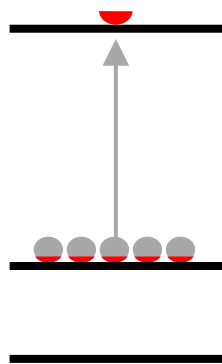
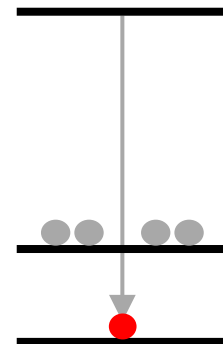
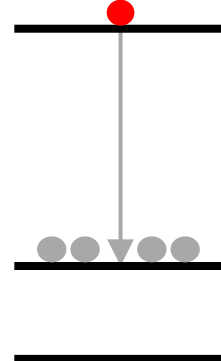
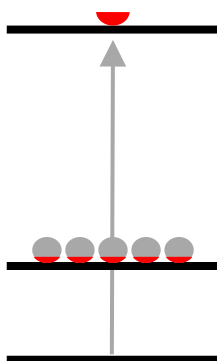


$A_1(\pi/2)$ $B_2(\pi)$  t_{gap} $B_3(\pi)$ $A_4(\pi/2)$ $B_5(\pi)$  $|r_i\rangle$ $|0_i\rangle$ $|1_i\rangle$

$$A_1^C(\pi)$$

$$A_2^T(\pi)$$

$$B_3^T(\pi)$$

$$B_4^C(\pi)$$

Control

$|r_i\rangle_C$

$|0_i\rangle_C$

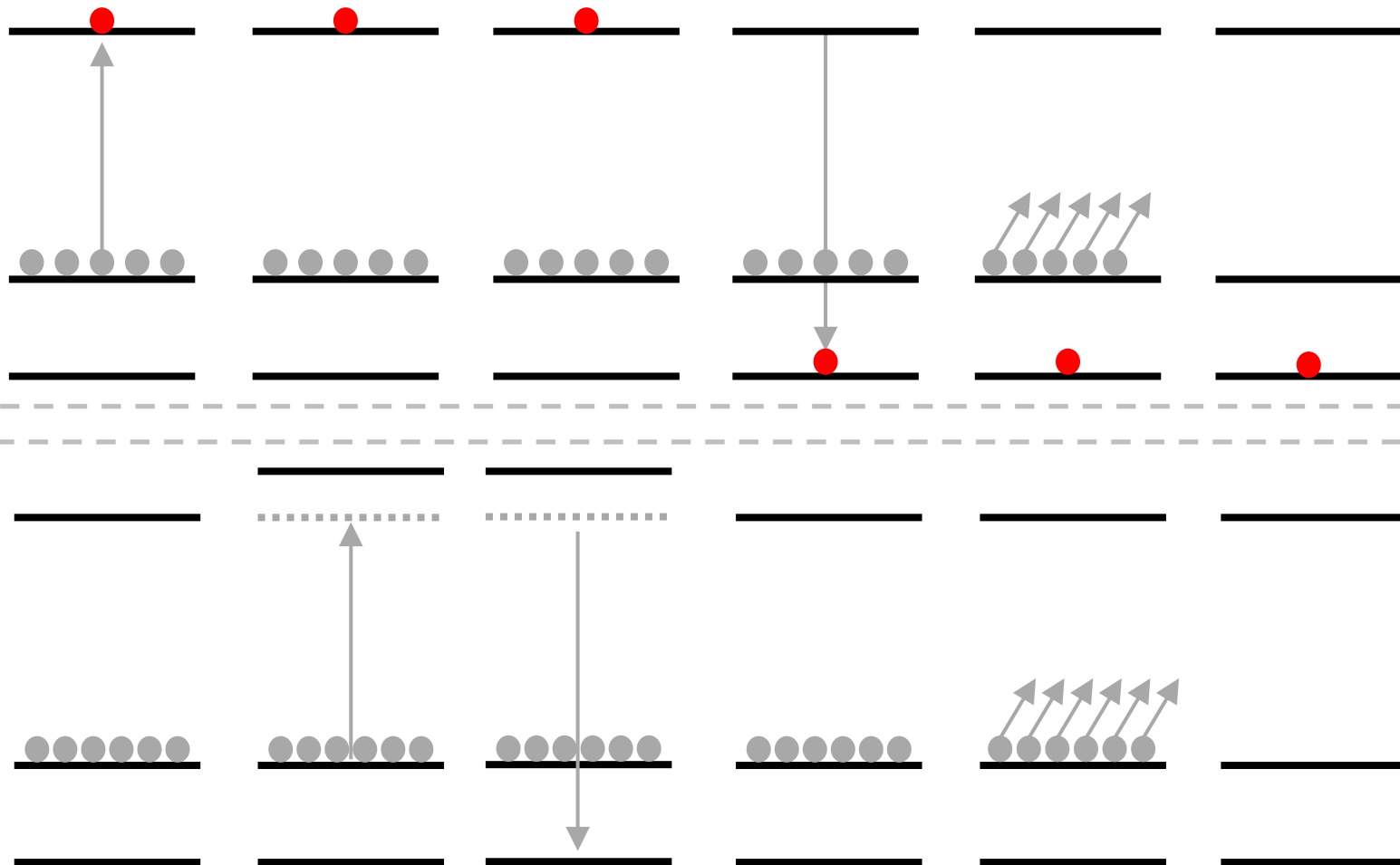
$|1_i\rangle_C$

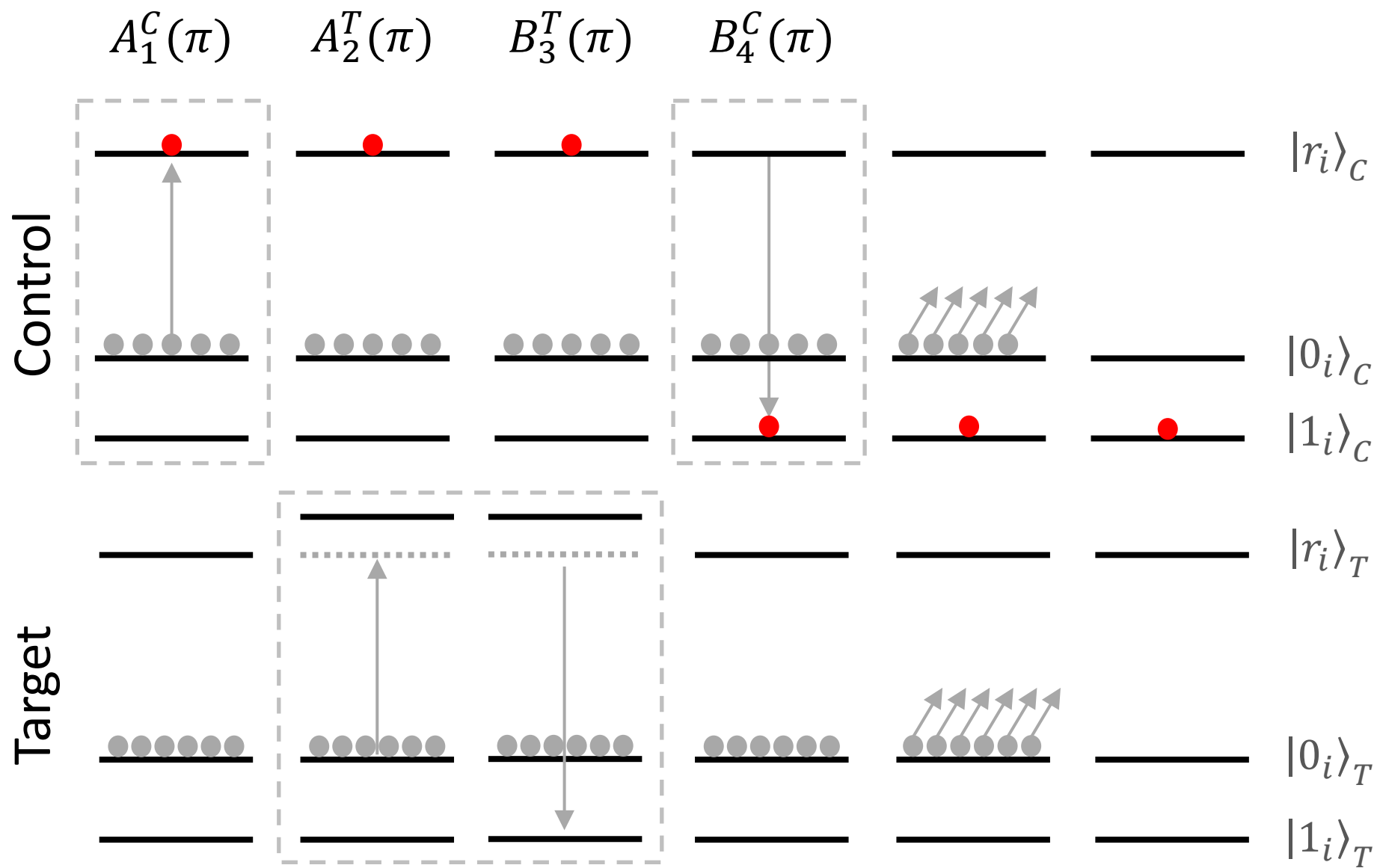
Target

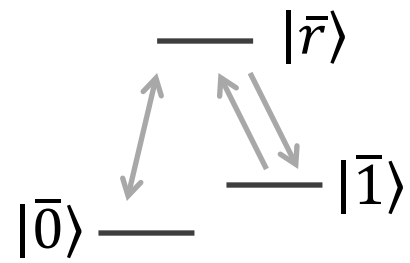
$|r_i\rangle_T$

$|0_i\rangle_T$

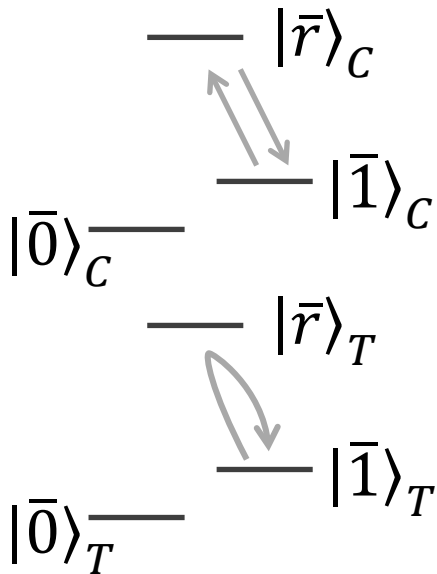
$|1_i\rangle_T$







$$B_1(\pi)A_2(\pi/2) B_3(\pi)$$



$$B_1^C(\pi)B_2^T(2\pi)B_3^C(\pi)$$