

# Approaches to Element 114 Chemistry with and without Physical Preseparation

?

1. Physics
- +
2. Chemistry

?

1. Physical  
preseparation  
from volatile  
products

2. Gas phase  
chemistry or  
chemistry in  
vacuum

1. Chemistry
- +
2. Chemistry

?

1. Chemical  
preseparation  
from volatile  
products (Rn)

2. Gas phase  
chemistry of  
E112 as  
daughter of  
E114

1. Chemistry
- +
2. Physics

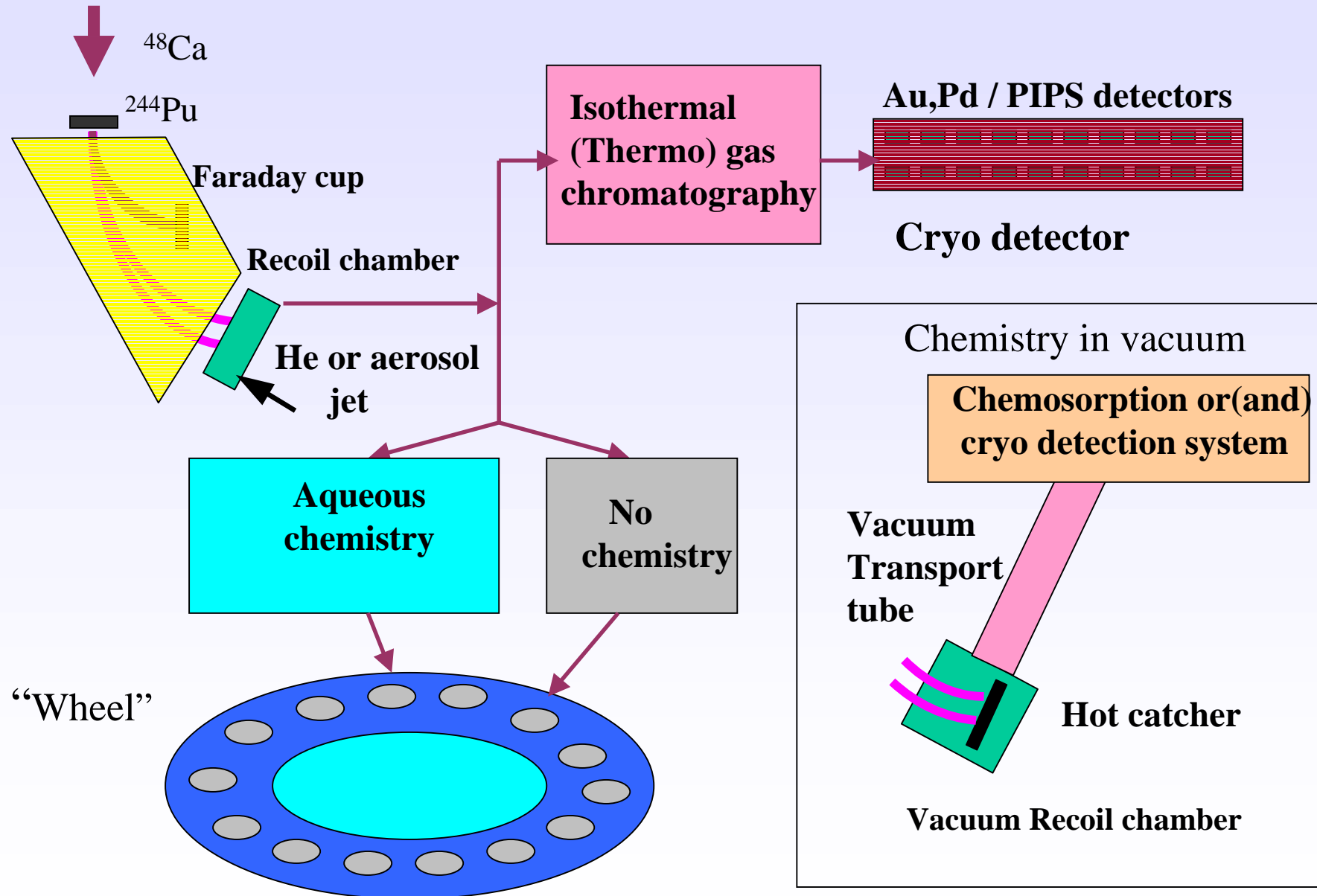
?

1. Chemical  
preseparation  
of volatile  
products

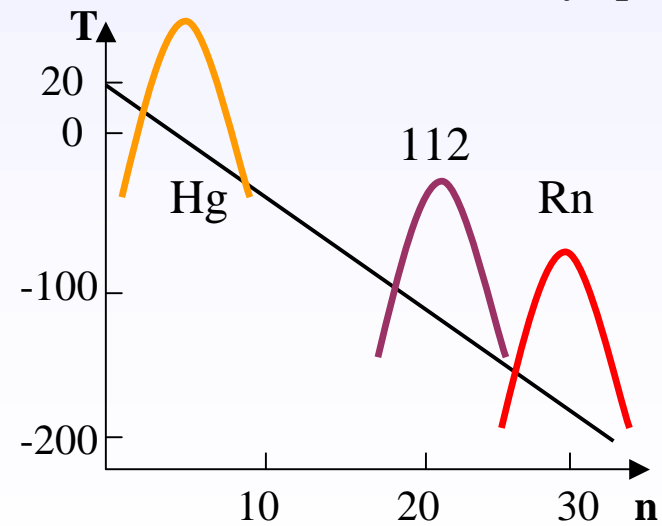
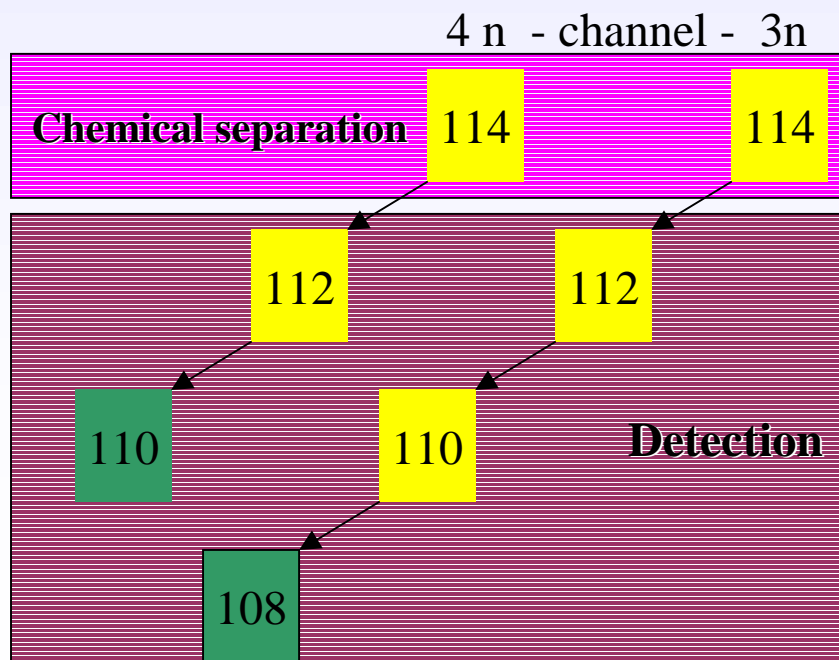
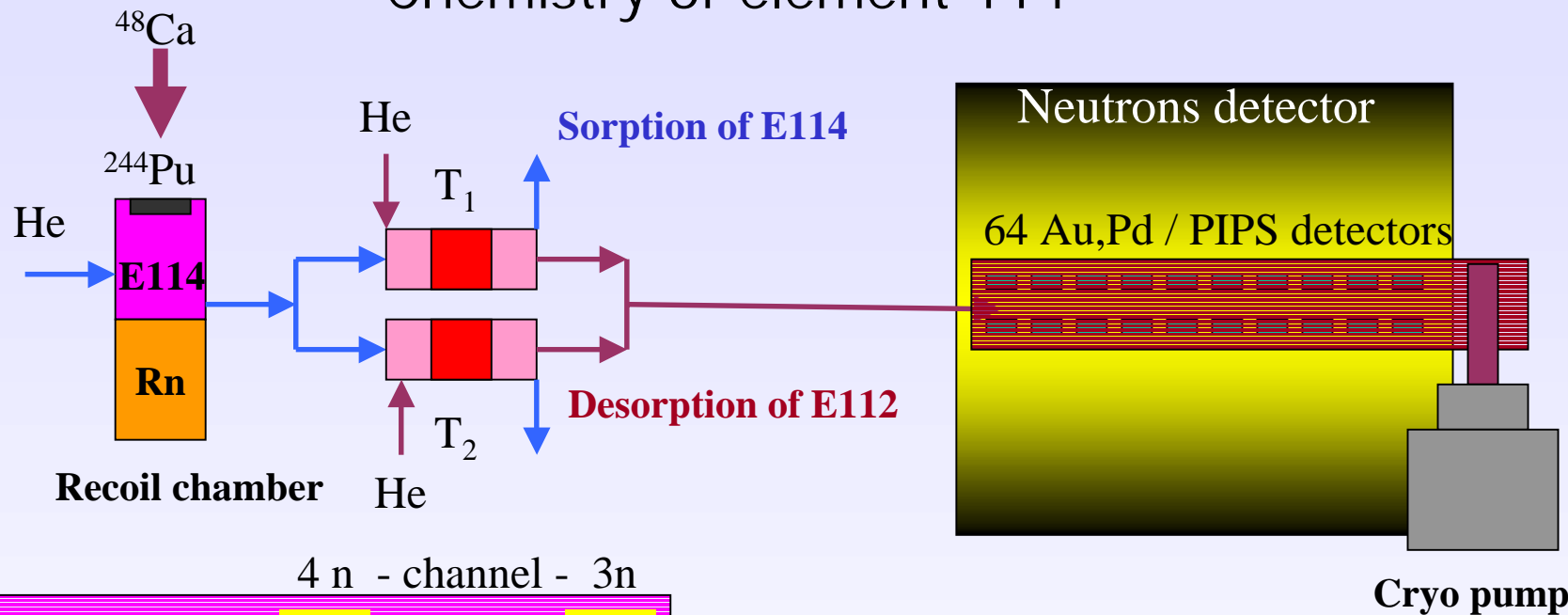
2. Physical  
mass separation

(MASHA)

# Chemistry of element 114 with pre-separator



# Chemistry of element 114



# Chemistry of Element 114 with preseparator

## Developments:

### Gas phase chemistry

- ☞ Gas transport of recoils from RTC
- ☞ Gas chromatography
- ☞ Sorbtion & detection

### Vacuum chemistry

- ☞ Hot catcher
- ☞ Transportation in vacuum
- ☞ Sorbtion & detection

- ? Chemistry with element 114 or element 112
- ? Properties of element 114 - Pb - like, Hg - like or Rn - like?
- ✚ No Rn background problem!!!