

How does it work?

Ca

P

Ca

P

Ca

P

Ca

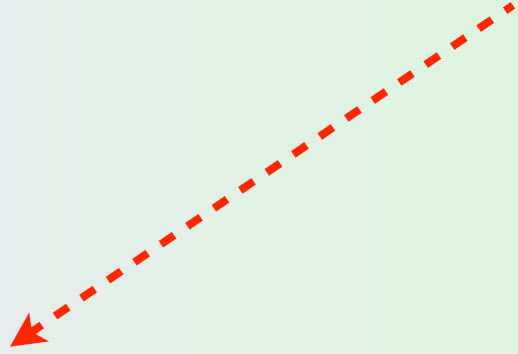
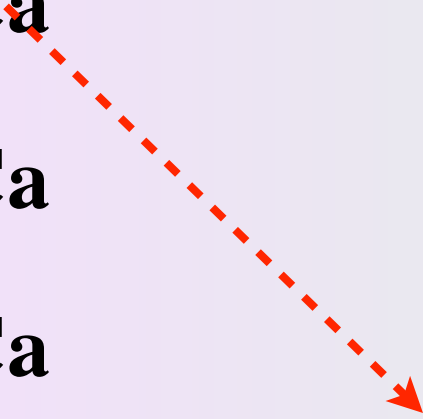
P

Ca

P

Ca

P



Ca

P

Ca

P

Ca

P

Ca

Ca^P

P

Ca

P

Ca

P

Ca

P

Ca

P

Ca⁺ P⁻

Ca

P

Ca

P

Ca

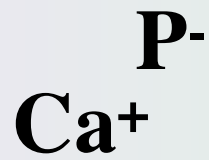
P



P

Ca

P



Ca

Ca

P

Ca

P⁻

Ca⁺

P⁻

Ca⁺

P

Ca

P⁻

Ca⁺

P

Ca

P



Ca

Ca⁺

P⁻
Ca⁺

Ca

Ca²⁺

P²⁻

P⁻

P

P

*can not lose any
more electrons*

Ca

P

Ca

Ca⁺

P⁻

Ca⁺

P²⁻

P

Ca²⁺

P

Ca

P²⁻

Ca⁺

P

Ca

Ca⁺

P⁻

Ca⁺

P²⁻

P

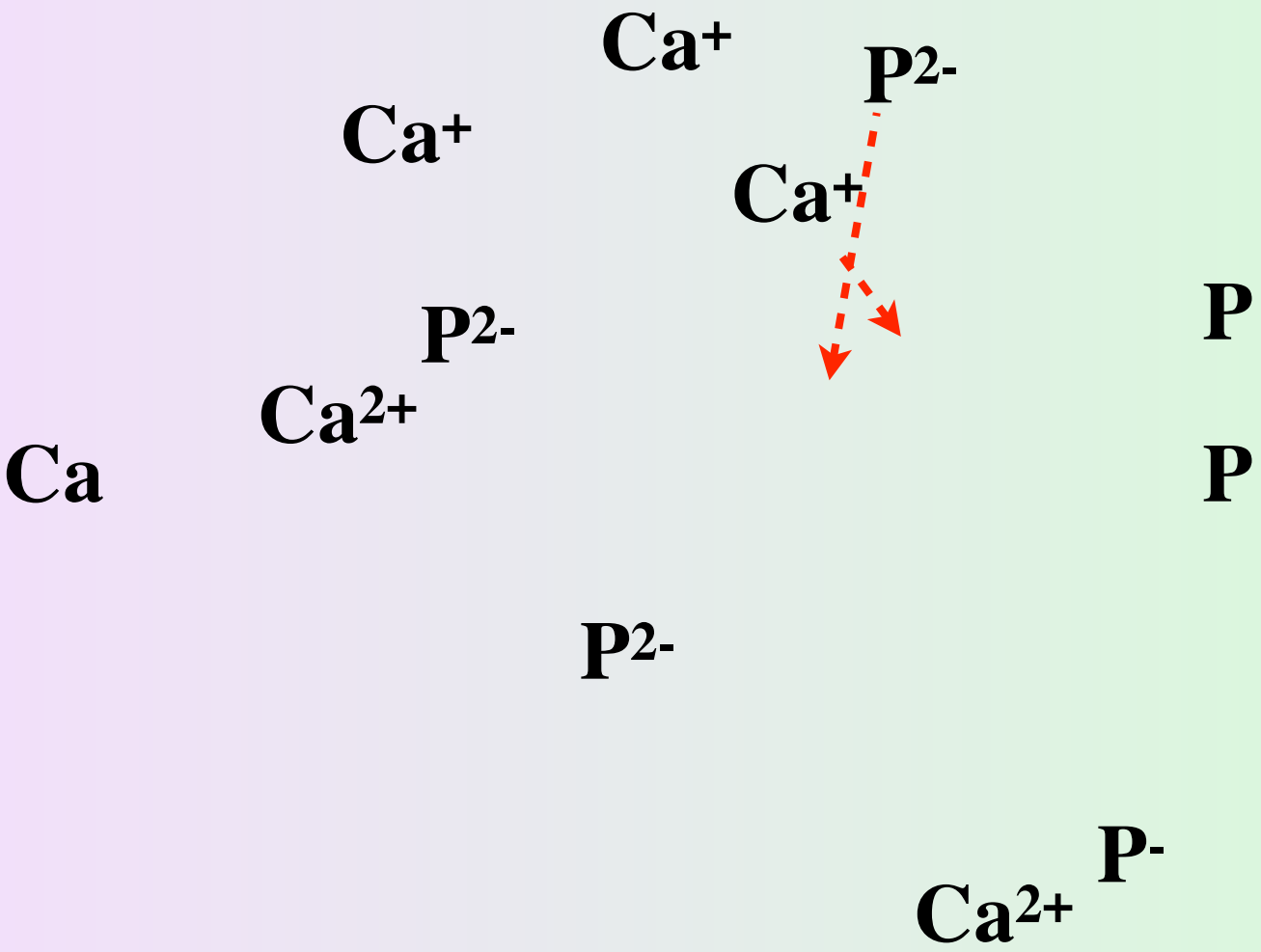
Ca

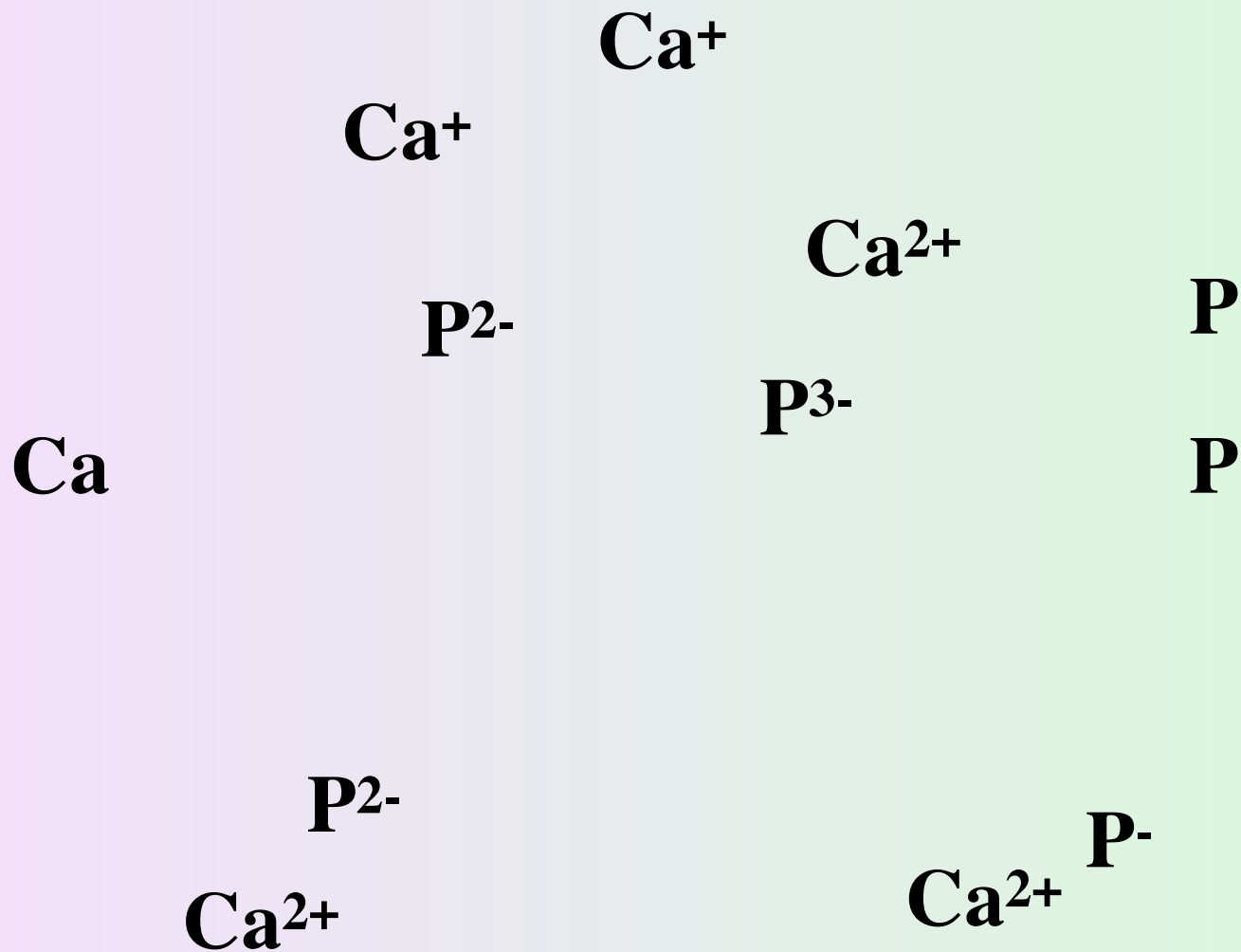
Ca²⁺

P

P²⁻

Ca²⁺ P⁻





Ca⁺

Ca²⁺P³⁻

Ca²⁺

P

Ca

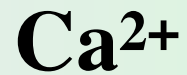
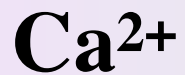
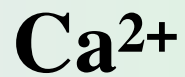
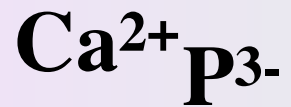
P³⁻

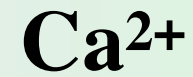
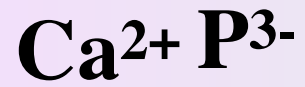
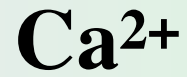
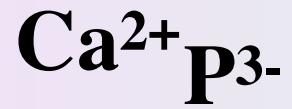
P

P²⁻

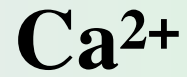
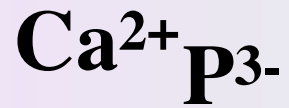
Ca²⁺

Ca²⁺P⁻

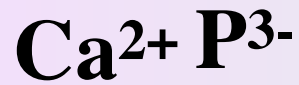




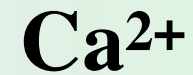
Done



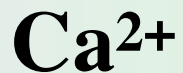
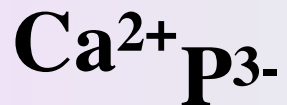
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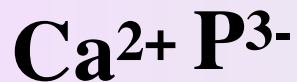
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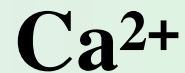
these phosphorous
didn't react



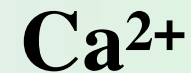
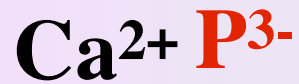
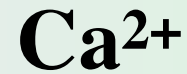
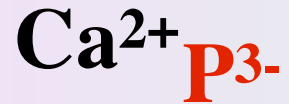
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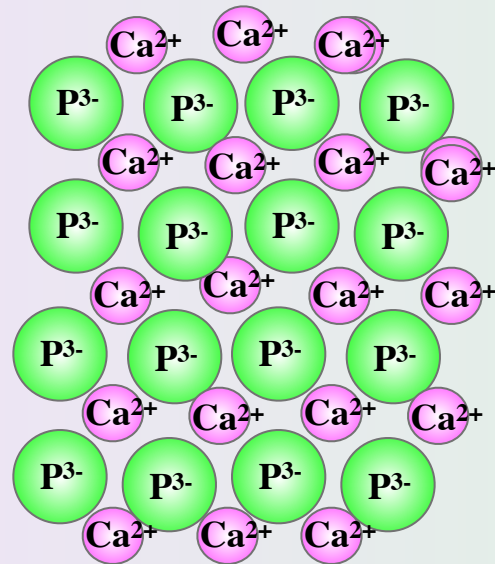
P



we end up with a 3 to 2
ratio of cations to anions







Lattice energy

$$\Delta H^\circ = +2350 \text{ kJ}$$



