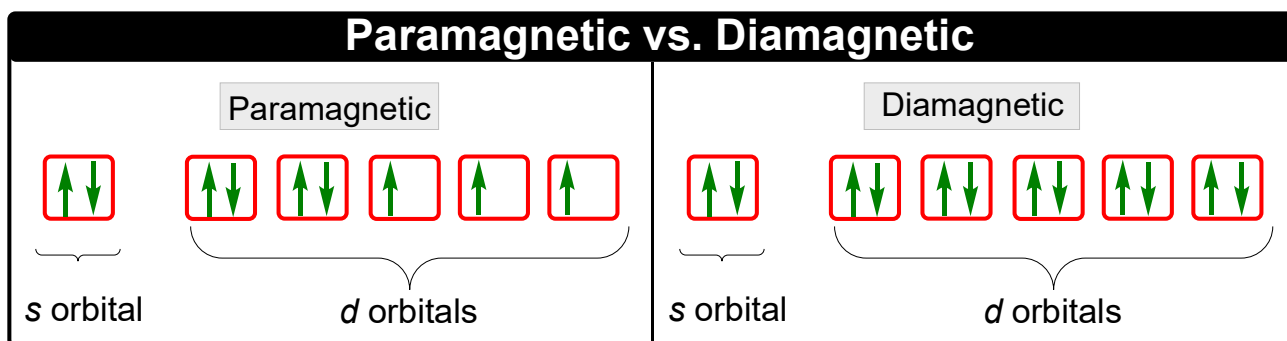


CONCEPT: PARAMAGNETISM AND DIAMAGNETISM

- Recall, an orbital can hold a maximum of 2 electrons that pair up with opposite spins.
 - Paramagnetic: When at least one electron in given orbitals is _____.
 - Diamagnetic: All electrons in given orbitals are _____.
- Paramagnetic substances experience an attractive force by a magnetic field.



EXAMPLE: Determine if the vanadium atom is paramagnetic or diamagnetic.

PRACTICE: Which of the following atoms has the most unpaired electrons?

- a) Co b) Mn c) Ti d) Zn e) Fe

PRACTICE: Write the condensed electron configuration for the nickel (III) ion and state if it is paramagnetic or diamagnetic.