Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per\_\_\_\_\_\_\_\_\_

**Electron Configuration of Ions**

Part A: Write the FULL electron configuration, orbital diagram, and Lewis Dot for each atom and its ion.

|  |  |  |  |
| --- | --- | --- | --- |
| O |  |  |  |
| O2- |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| B |  |  |  |
| B3+ |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| K |  |  |  |
| K+ |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| As |  |  |  |
| As3- |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Fe |  |  |  |
| Fe2+ |  |  |  |

Part B: Write the FULL electron configuration for the following atoms and ions. Then, indicate whether atom or ion is stable or not.

|  |  |  |  |
| --- | --- | --- | --- |
| **Atom/Ion** | **Electron Configuration** | **Orbital diagram** | **Stable?** |
| Se2- |  |  |  |
| Ag2+ |  |  |  |
| Be2+ |  |  |  |
| Ge2+ |  |  |  |
| N2- |  |  |  |
| Co+ |  |  |  |
| Al3+ |  |  |  |
| Al3− |  |  |  |
| P3- |  |  |  |
| **Atom/Ion** | **Electron Configuration** | **Orbital diagram** | **Stable?** |
| Kr− |  |  |  |
| S2- |  |  |  |
| S2+ |  |  |  |
| H+ |  |  |  |
| H- |  |  |  |
| Br- |  |  |  |