

## Electron Configurations and Orbital Box Diagrams

Write an orbital box diagram and a full electron configuration for the following:

Na	$1s^2 2s^2 2p^6 3s^1$ 
Fe	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^6$ 
S	$1s^2 2s^2 2p^6 3s^2 3p^4$ 
Cu	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^1 3d^{10}$ 
Mo	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1 4d^5$ 
Cd	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10}$ 
I	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^5$ 
Tl	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^{10} 6p^1$ 