Lanthanide Ground Shell Electron Configuration per Ionization State

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	Charge States									
Element Name (Z)	I	II	III	IV	V	VI	VII	VIII	IX	X
Lanthanum (57)	[Xe]$5d^1 6s^2$	[Xe]$5d^2$	[Xe]$5d^1$	[Cd]$5p^6$	[Cd]$5p^5$	[Cd]$5p^4$	[Cd]$5p^3$	[Cd]$5p^2$	[Cd]$5p^1$	[Kr]$4d^1 05s^2$
Cerium (58)	[Xe]$4f^1 5d^1 6s^2$	[Xe]$4f^1 5d^2$	[Xe]$4f^2$	[Xe]$4f^1$	[Cd]$5p^6$	[Cd]$5p^5$	[Cd]$5p^4$	[Cd]$5p^3$	[Cd]$5p^2$	[Cd]$5p^1$
Praseodymium (59)	[Xe]$4f^3 6s^2$	[Xe]$4f^3 6s^1$	[Xe]$4f^3$	[Xe]$4f^2$	[Xe]$4f^1$	[Cd]$5p^6$	[Cd]$4f^1 5p^4$	[Cd]$4f^1 5p^3$	[Cd]$4f^1 5p^2$	[Cd]$4f^2$
Neodymium (60)	[Xe]$4f^4 6s^2$	[Xe]$4f^4 6s^1$	[Xe]$4f^4$	[Xe]$4f^3$	[Xe]$4f^2$	[Cd]$4f^2 5p^5$	[Cd]$4f^2 5p^4$	[Cd]$4f^2 5p^3$	[Cd]$4f^2 5p^2$	[Cd]$4f^2 5p^1$
Promethium (61)	[Xe]$4f^5 6s^2$	[Xe]$4f^5 6s^1$	[Xe]$4f^5$	[Xe]$4f^4$	[Xe]$4f^3$	[Cd]$4f^3 5p^5$	[Cd]$4f^3 5p^4$	[Cd]$4f^3 5p^3$	[Cd]$4f^3 5p^2$	[Cd]$4f^3 5p^1$
Samarium (62)	[Xe]$4f^6 6s^2$	[Xe]$4f^6 6s^1$	[Xe]$4f^6$	[Xe]$4f^5$	[Xe]$4f^4$	[Xe]$4f^3$	[Cd]$4f^4 5p^4$	[Cd]$4f^4 5p^3$	[Cd]$4f^4 5p^2$	[Cd]$4f^4 5p^1$
Europium (63)	[Xe]$4f^7 6s^2$	[Xe]$4f^7 6s^1$	[Xe]$4f^7$	[Xe]$4f^6$	[Xe]$4f^5$	[Cd]$4f^5 5p^5$	[Cd]$4f^5 5p^4$	[Cd]$4f^5 5p^3$	[Cd]$4f^5 5p^2$	[Cd]$4f^5 5p^1$
Gadolinium (64)	[Xe]$4f^7 5d^1 6s^2$	[Xe]$4f^7 5d^1 6s^1$	[Xe]$4f^7 5d^1$	[Xe]$4f^7$	[Xe]$4f^6$	[Cd]$4f^6 5p^5$	[Cd]$4f^6 5p^4$	[Cd]$4f^6 5p^3$	[Cd]$4f^6 5p^2$	[Cd]$4f^5 5p^2$
Terbium (65)	[Xe]$4f^9 6s^2$	[Xe]$4f^9 6s^1$	[Xe]$4f^9$	[Xe]$4f^8$	[Xe]$4f^7$	[Cd]$4f^7 5p^5$	[Cd]$4f^8 5p^3$	[Cd]$4f^7 5p^3$	[Cd]$4f^7 5p^2$	[Cd]$4f^6 5p^2$
Dysprosium (66)	[Xe]$4f^{10} 6s^2$	[Xe]$4f^{10} 6s^1$	[Xe]$4f^{10}$	[Xe]$4f^9$	[Xe]$4f^8$	[Cd]$4f^8 5p^5$	[Cd]$4f^8 5p^4$	[Cd]$4f^9 5p^2$	[Cd]$4f^8 5p^2$	[Cd]$4f^8 5p^1$
Holmium (67)	[Xe]$4f^{11} 6s^2$	[Xe]$4f^{11} 6s^1$	[Xe]$4f^{11}$	[Xe]$4f^{10}$	[Xe]$4f^9$	[Cd]$4f^9 5p^5$	[Cd]$4f^9 5p^4$	[Cd]$4f^9 5p^3$	[Cd]$4f^{10} 5p^1$	[Cd]$4f^9 5p^1$
Erbium (68)	[Xe]$4f^{12} 6s^2$	[Xe]$4f^{12} 6s^1$	[Xe]$4f^{12}$	[Xe]$4f^{11}$	[Xe]$4f^{10}$	[Cd]$4f^{10} 5p^5$	[Cd]$4f^{10} 5p^4$	[Cd]$4f^{10} 5p^3$	[Cd]$4f^{10} 5p^2$	[Cd]$4f^{10} 5p^1$
Thulium (69)	[Xe]$4f^{13} 6s^2$	[Xe]$4f^{13} 6s^1$	[Xe]$4f^{13}$	[Xe]$4f^{12}$	[Xe]$4f^{11}$	[Cd]$4f^{11} 5p^5$	[Cd]$4f^{11} 5p^4$	[Cd]$4f^{11} 5p^3$	[Cd]$4f^{11} 5p^2$	[Cd]$4f^{11} 5p^1$
Ytterbium (70)	[Xe]$4f^{14} 6s^2$	[Xe]$4f^{14} 6s^1$	[Xe]$4f^{14}$	[Xe]$4f^{13}$	[Xe]$4f^{12}$	[Cd]$4f^{12} 5p^5$	[Cd]$4f^{12} 5p^4$	[Cd]$4f^{12} 5p^3$	[Cd]$4f^{12} 5p^2$	[Cd]$4f^{12} 5p^1$
Lutetium (71)	[Xe]$4f^{14} 5d^1 6s^2$	[Xe]$4f^{14} 6s^2$	[Xe]$4f^{14} 6s^1$	[Xe]$4f^{14}$	[Xe]$4f^{13}$	[Xe]$4f^{12}$	[Cd]$4f^{13} 5p^4$	[Cd]$4f^{13} 5p^3$	[Cd]$4f^{13} 5p^2$	[Cd]$4f^{12} 5p^2$

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