Periodic Table of Electron Affinity



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Periodic Table PDF: Electron Affinity Heat Map: notes

About this sheet

Every element shaded by electron affinity in kJ/mol, on a linear scale, with darker tiles for a stronger pull on an extra electron. The printed value is on each tile and tiles with no data are grey. The highest is chlorine (348.6) and the lowest is nobelium (-2.2×10^2).

Best for

Comparing which elements gain electrons most readily, and why the halogens stand out.

Printing

Heat maps rely on shading, so print in color. In grayscale the darker tiles still read as higher values.

What the data shows

109 of the 118 elements have a value for electron affinity, so 9 tiles are grey. The three highest are chlorine (348.6), fluorine (328.2) and bromine (324.5) and the three lowest are nobelium (-223.2), berkelium (-165.2) and neon (-116), all in kJ/mol.

Averaged by family, the halogens sit highest (282.6 kJ/mol) and the noble gases lowest (-70.8 kJ/mol).

The median element is 46.88 kJ/mol, so half the elements fall below that shade.

How the table is organised

Atomic number counts the protons in an atom's nucleus and fixes each element's place in the table. Moving down a group adds a new electron shell, so atomic radius grows and metallic character increases.

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