

6.6: Electron Affinity

Electron Affinity

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Electron Affinity

Atom	Atomic No.	1st Electron Affinity (kJ/mol)
H	1	-72.77
He	2	48.24
Li	3	-59.63
Be	4	48.24
B	5	-26.73
C	6	-121.85
N	7	6.75
O	8	-140.98
F	9	-327.95
Ne	10	115.78
Na	11	-52.87
Mg	12	38.59
Al	13	-42.55
Si	14	-133.63
P	15	-72.03
S	16	-200.41
Cl	17	-348.99
Ar	18	96.49
K	19	-48.38
Ca	20	-2.37
Sc	21	-18.14
Ti	22	-7.62
V	23	-50.65
Cr	24	-64.26
Mn	25	115.78
Fe	26	-15.73
Co	27	-63.78
Ni	28	-111.54
Cu	29	-118.48
Zn	30	57.89
Ga	31	-28.95
Ge	32	-115.78
As	33	-78.15
Se	34	-194.97
Br	35	-324.67

Atom	Atomic No.	1st Electron Affinity (kJ/mol)
Kr	36	96.49
Rb	37	-46.88
Sr	38	48.24
Y	39	-29.62
Zr	40	-41.10
Nb	41	-86.16
Mo	42	-71.98
Tc	43	-53.07
Ru	44	-101.31
Rh	45	-109.70
Pd	46	-53.74
Ag	47	-125.62
Cd	48	67.54
In	49	-28.95
Sn	50	-115.78
Sb	51	-103.24
Te	52	-190.15
I	53	-295.16
Xe	54	77.19
Cs	55	-45.51
Ba	56	28.95
La	57	-48.24
Ce	58	
Pr	59	
Nd	60	
Pm	61	
Sm	62	
Eu	63	
Gd	64	
Tb	65	
Dy	66	
Ho	67	
Er	68	
Tm	69	
Yb	70	
Lu	71	0.00
Hf	72	-9.65
Ta	73	-31.07
W	74	-78.64
Re	75	-14.47

Atom	Atomic No.	1st Electron Affinity (kJ/mol)
Os	76	-106.13
Ir	77	-151.00
Pt	78	-205.32
Au	79	-222.75
Hg	80	48.24
Tl	81	-19.30
Pb	82	-35.12
Bi	83	-91.28
Po	84	-183.32
At	85	-270.16
Rn	86	67.54
Fr	87	
Ra	88	
Ac	89	
Th	90	
Pa	91	
U	92	
Np	93	
Pu	94	
Am	95	
Cm	96	
Bk	97	
Cf	98	
Es	99	
Fm	100	
Md	101	
No	102	
Lr	103	

Anderson, T.; Haugen, H. K.; and Hotop, W.. J. Phys. Chem. Ref. Data 1999, 28(6), 1526-1527.

Bratsch, Steven G.; Lagowski, J. J. Polyhedron 1986, 5, 1763-1770. Note that in this table the convention is that $EA = \Delta E$ when an electron is added to an atom to form a negative ion.

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