electronegativity

Concept introduced by L. Pauling as the power of an atom to attract electrons to itself. There are several definitions of this quantity. According to Mulliken it is the average of the ionization energy and electron affinity of an atom, but more frequently a relative scale due to Pauling is used where dimensionless relative electronegativity differences are defined on the basis of bond dissociation energies, E_d, expressed in electronvolts:

$$\chi_r(A) - \chi_r(B) = (eV)^{-1/2} \sqrt{E_d(AB) - \frac{1}{2}\left[E_d(AA) + E_d(BB)\right]}$$

The scale is chosen so as to make the relative electronegativity of hydrogen $\chi_r = 2.1$. The sign of the square root was chosen intuitively by Pauling.

Source:
Green Book, 2nd ed., p. 20
PAC, 1994, *66*, 1077 *(Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994))* on page 1111