

**RELATIONSHIP BETWEEN HYDRIDE AFFINITY AND ELECTRON
AFFINITY OF SMALL MOLECULES. A ONE PARAMETER EQUATION
APPROACH.**

Paola R. Campodónico¹, Renato Contreras² and Arie Aizman³

*¹Instituto de Ciencias, Facultad de Medicina, Clínica Alemana Universidad del
Desarrollo, Código Postal 771-0162, Santiago, Chile; ²Departamento de Química,
Facultad de Ciencias, Universidad de Chile, Casilla 653-Santiago, Chile,
³Departamento de Química, Universidad Técnica Federico Santa María, Casilla 110V-
Valparaíso, Chile.*

Abstract.

We propose the vertical electron affinity of a hydrogenated species (QH) be taken as a measure of the intrinsic hydride affinity of their de-hydrogenated companion (Q), for a set of related compounds. The relationship between this one-parameter acidity scale for Q is further related to its potential intrinsic electrophilicity. The model is tested for a significant number of molecules presenting a wide variety in structure and bonding properties.