1049-46-133 **Lourdes Palacios*** (pafa@xanum.uam.mx), Avenida San Rafael Atlixco 186, Colonia Vicentina, 09340 Mexico City, Mexico. *On some Q-like properties in Topological Algebras.* Preliminary report.

In a unital Banach algebra A the set $G(A)$ of its invertible elements is an open set and the application $x \to x^{-1}$ from $G(A)$ onto $G(A)$ is continuous. More generally, if A is a metrizable and complete topological algebra, then the mapping $x \to x^{-1}$ is continuous if and only if $G(A)$ is a G_δ set.

We say that a topological algebra A is a Q-algebra if the set $G(A)$ is an open set. If A is a commutative Q-algebra and the mapping $x \to x^{-1}$ is continuous, i.e. it is a Waelbroeck algebra, then all the maximal ideals are closed and of codimension 1

Q-topological algebras have some interesting properties as the following: the spectrum $\sigma(x)$ is compact for every $x \in A$ and if A is commutative, then the set $\mathfrak{M}(A)$ of all non-zero linear, multiplicative and continuous functionals of A is non empty if and only if A is not a field and A is a *Gelfand-Mazur algebra*.

We will examine some properties related to Q-algebras and their relations with some other algebras. We will also provide some interesting examples. (Received March 01, 2009)