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Panepistimioupolis, Athens, Greece, *Wedderburn decompositions of pseudo-convex H -algebras.*

ABSTRACT. A Wedderburn structure theory is developed for two classes of (non-normed) topological algebras. We call them modular complemented, resp. properly pre-complemented, H -algebras. In both cases we deal with pseudo- H -algebras having separately continuous multiplication. Here the underlying vector space is a pseudo- H -space, making the algebra in the induced topology locally convex. The so called *density property* is one of the properties defining the first class, being the gist in facing problems pertaining to structure theory in Wedderburn's perspective. In this context, our results acquire a quite different form, since decomposition via orthogonal complements need not exist, in contrast with closed subspaces in Hilbert space.