Hernández, Julio C.; Hofmann, Karl H.
A note on locally compact subsemigroups of compact groups. (English) Zbl 07365265
Semigroup Forum 103, No. 1, 291-294 (2021)

Summary: An elementary proof is given for the fact that every locally compact subsemigroup of a compact topological group is a closed subgroup. A sample consequence is that every commutative cancellative pseudocompact locally compact Hausdorff topological semigroup with open shifts is a compact topological group.

MSC:
22A25 Representations of general topological groups and semigroups
20M10 General structure theory for semigroups
22C05 Compact groups
54B30 Categorical methods in general topology
54H10 Topological representations of algebraic systems

Keywords:
topological semigroup; compact group; cancellative semigroup; precompact; pseudocompact

Full Text: DOI

References:

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.