

COMPACTIFICATIONS OF TOPOLOGICAL BRANDT λ^0 -EXTENSIONS OF SEMITOPOLOGICAL MONOIDS

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Taking into account Reznichenko's results, we shall say that a Tychonoff space has the *Grothendieck property* if every separately continuous function defined on the product of spaces can be extended to a separately continuous function defined on their Stone-Ćech compactifications. The Bohr compactification $\mathbb{B}(S)$ of a Tychonoff semitopological monoid S with Grothendieck property coincides with its Stone-Ćech compactification βS . Based on some topological properties which are preserved by infinite Brandt λ^0 -extensions (i.e., regularity, separability, being a Tychonoff space, being a k -space) we obtain the Bohr and the Stone-Ćech compactifications of Brandt λ^0 -extensions of semitopological monoids.