Substitution shifts on infinite countable and compact alphabets

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Durand, Ormes and Petite showed that any minimal and self-induced Cantor dynamical system can be seen as a shift generated by a primitive and recognisable generalised substitution on a compact alphabet. In parallel, Domingos, Ferenczi, Messaoudi and Valle studied the dynamical properties of shifts generated by substitutions defined on a countable infinite alphabet. The aim is twofold: firstly, to use examples to establish the link between generalised substitutions on a countable infinite compact alphabet and substitutions defined on in the sense of Domingos, Ferencsi, Messaoudi and Valle. Secondly, to attempt to generalise to systems generated by substitutions defined on countable infinite compact alphabets the ergodic results known for shifts generated by primitive classical substitutions on finite alphabets.