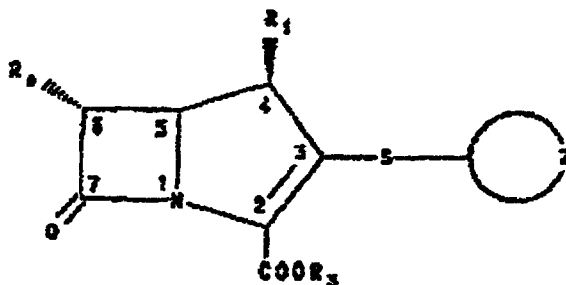
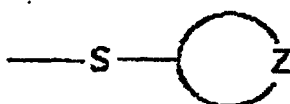


ABSTRACT

Carbapenem antibiotic compounds of the general formula:



wherein the moiety



is a 4, 5 or 6 membered mono, di- or tri- substituted oxygen or sulfur containing ring; wherein Z is oxygen, sulfur, sulfoxide and sulfone, pharmaceutical compositions thereof useful for the treatment of bacterial infections, processes for preparing the compounds and new intermediates useful in the process.

