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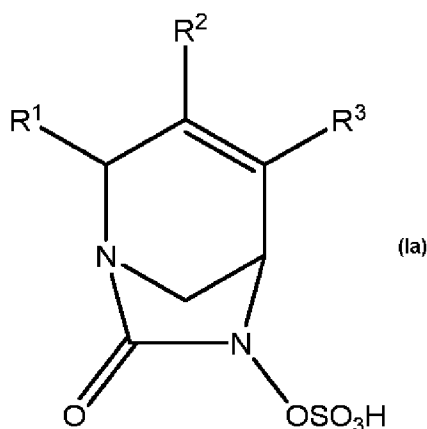
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[Continued on next page]

(54) Title: HETEROBICYCLIC COMPOUNDS AS BETA-LACTAMASE INHIBITORS



(57) Abstract: The present invention is directed to compounds which are beta-lactamase inhibitors. The compounds and their pharmaceutically acceptable salts, are useful in combination with beta-lactam antibiotics, or alone, for the treatment of bacterial infections, including infections caused by drug resistant organisms, including multi-drug resistant organisms. The present invention includes compounds according to formula (Ia): or a pharmaceutically acceptable salt thereof, wherein the values of R¹, R², R³ and R⁴ are described herein.



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