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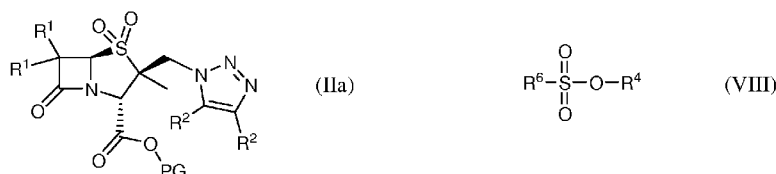
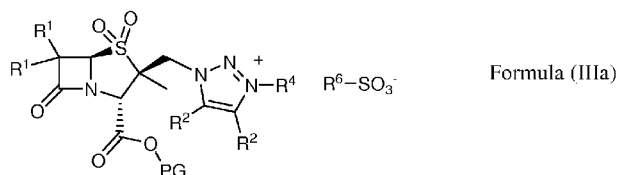
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(54) Title: METHODS FOR PREPARING PENAMS



(57) **Abstract:** A method of forming a compound of formula (IIIa); wherein: R¹ in each occurrence is independently selected from H, halogen, amino, C₁₋₅ alkyl, C₁₋₅ alkenyl and C₁₋₅ alkynyl; R² in each occurrence is independently selected from H, halogen, amino, C₁₋₅ alkyl, C₁₋₅ alkenyl and C₁₋₅ alkynyl; R⁴ is C₁₋₅ alkyl; and R⁶ is a C₁₋₅ fluoroalkyl; and PG is a protecting group, the method comprising the step of reacting a compound of formula (IIa) with a compound of formula (VIII).