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Title:	Facile synthesis of novel monocyclic trans- and cis-3-oxy/thio/seleno-4-pyrazolyl- $\beta$ -lactams
Authors:	Mandal, S. (/jspui/browse?type=author&value=Mandal%2C+S.) Khullar, S. (/jspui/browse?type=author&value=Khullar%2C+S.)
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Abstract:	A facile synthesis of novel monocyclic trans- and cis-3-oxy/thio/seleno-4-pyrazolyl- $\beta$ -lactams (5, 6) is described. The reaction of 2-methoxy/phenoxy/benzyl/phenylthio/seleno ethanoic acids or acetoxyacetyl chloride 4 with pyrazolyl substituted Schiff's bases 3a-d using POCl <sub>3</sub> and Et <sub>3</sub> N in refluxing toluene furnished $\beta$ -lactams (5, 6). These synthesized $\beta$ -lactams have been characterized by spectroscopic techniques viz. NMR (1H, 13C and 77Se), FT-IR, mass spectrometry (EI-MS and HRMS) and elemental analysis. Single crystal X-ray crystallographic study of trans-1-(4'-methoxyphenyl)-3-methoxy-4-(5'-chloro-3'-methyl-1'-phenyl-1H-pyrazol-4'-yl)azetidin-2-one 5p has confirmed the molecular structure and the stereochemical outcome. The cis or trans configuration of $\beta$ -lactams (5, 6) was assigned with respect to position of C3-H and C4-H. © 2015 ARKAT-USA, Inc.
Description:	Only IISERM authors are available in the record.
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