



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

/ Publications of IISER Mohali (/jspui/handle/123456789/4)

/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/2558>

Title:	Facile synthesis of novel halogenated 4-pyrazolylspirocyclic- β -lactams: versatile heterocyclic synthons
Authors:	Khullar, S. (/jspui/browse?type=author&value=Khullar%2C+S.) Mandal, S. (/jspui/browse?type=author&value=Mandal%2C+S.)
Keywords:	β -Lactams X-ray crystal structures Halogenated Rotamers Spirocyclic
Issue Date:	2016
Publisher:	Elsevier
Citation:	Tetrahedron Letters, 57(25), pp.2822-2828.
Abstract:	A mild approach for the synthesis of halogenated 4-pyrazolylspirocyclic- β -lactams via halogen (I ₂ , Br ₂ , ICl) mediated intrasulfonyl cyclisation of cis-3-(prop-2'-ynyloxy)-4-pyrazolyl- β -lactams is described. The behaviour of the substrate towards the nature and variable amount of halogen was investigated. The structural and stereochemical analysis of novel β -lactams were carried out using FT-IR, NMR (1H and 13C), 2D-NMR (COSY and HSQC), elemental analysis (CHNS), mass spectrometry (EIMS) and single crystal X-ray crystallographic studies (3a, 6a, 7a). NMR experiments were also performed on cis-3-chloro-4-pyrazolyl- β -lactams to establish the relationship between isomeric ratio of rotamers and nature of solvents. The cis or trans configuration of the hydrogen/chloro/nucleophile substituent at C-3 was assigned with respect to C4-H.
Description:	Only IISERM authors are available in the record.
URI:	https://www.sciencedirect.com/science/article/pii/S0040403916305718 (https://www.sciencedirect.com/science/article/pii/S0040403916305718) http://hdl.handle.net/123456789/2558 (http://hdl.handle.net/123456789/2558)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format
Need to add pdf.odt (/jspui/bitstream/123456789/2558/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text

[View/Open \(/jspui/bitstream/123456789/2558/1/Need%20to%20add%20pdf.odt\)](#)

[Show full item record \(/jspui/handle/123456789/2558?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/2558/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.