



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/123456789/4327>

Title:	Pyrazole-Mediated C–H Functionalization of Arene and Heteroarenes for Aryl–(Hetero)aryl Cross-Coupling Reactions
Authors:	Kundu, Abhishek (/jspui/browse?type=author&value=Kundu%2C+Abhishek) Dey, Dhananjay (/jspui/browse?type=author&value=Dey%2C+Dhananjay) Pal, Subhankar (/jspui/browse?type=author&value=Pal%2C+Subhankar) Adhikari, Debashis (/jspui/browse?type=author&value=Adhikari%2C+Debashis)
Keywords:	C–H Functionalization Cross-Coupling
Issue Date:	2021
Publisher:	ACS Publications
Citation:	The Journal of Organic Chemistry, 86(21), 15665–15673.
Abstract:	Herein we introduce a transition-metal-free protocol that involves a commercially available, inexpensive pyrazole molecule to conduct C–C cross-coupling reactions at room temperature via a radical pathway. Using this method, an aryldiazonium salt has been coupled to a wide range of arenes and heteroarenes including benzene, mesitylene, thiophene, furan, benzoxazole to result the corresponding biaryl products. The full reaction mechanism is elucidated along with the crystallographic probaton of an active initiator species. A potassium-stabilized deprotonated pyrazole steers single-electron transfer to the substrate and behaves as an initiator for the reaction.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://pubs.acs.org/doi/epdf/10.1021/acs.joc.1c02234 , https://doi.org/10.1021/acs.joc.1c02234 (https://pubs.acs.org/doi/epdf/10.1021/acs.joc.1c02234 , https://doi.org/10.1021/acs.joc.1c02234)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need To Add...Full Text_PDF..pdf (/jspui/bitstream/123456789/4327/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF..pdf)		15.36 kB	Adobe PDF	View/Open (/jspui/bitstream/123456789/4327/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF..pdf)

[Show full item record \(/jspui/handle/123456789/4327?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/4327/statistics\)](#)

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

