RSEQ
Real Sociedad Española de Química

ugr Universidad de Granada

XXXVIII REUNIÓN BIENAL

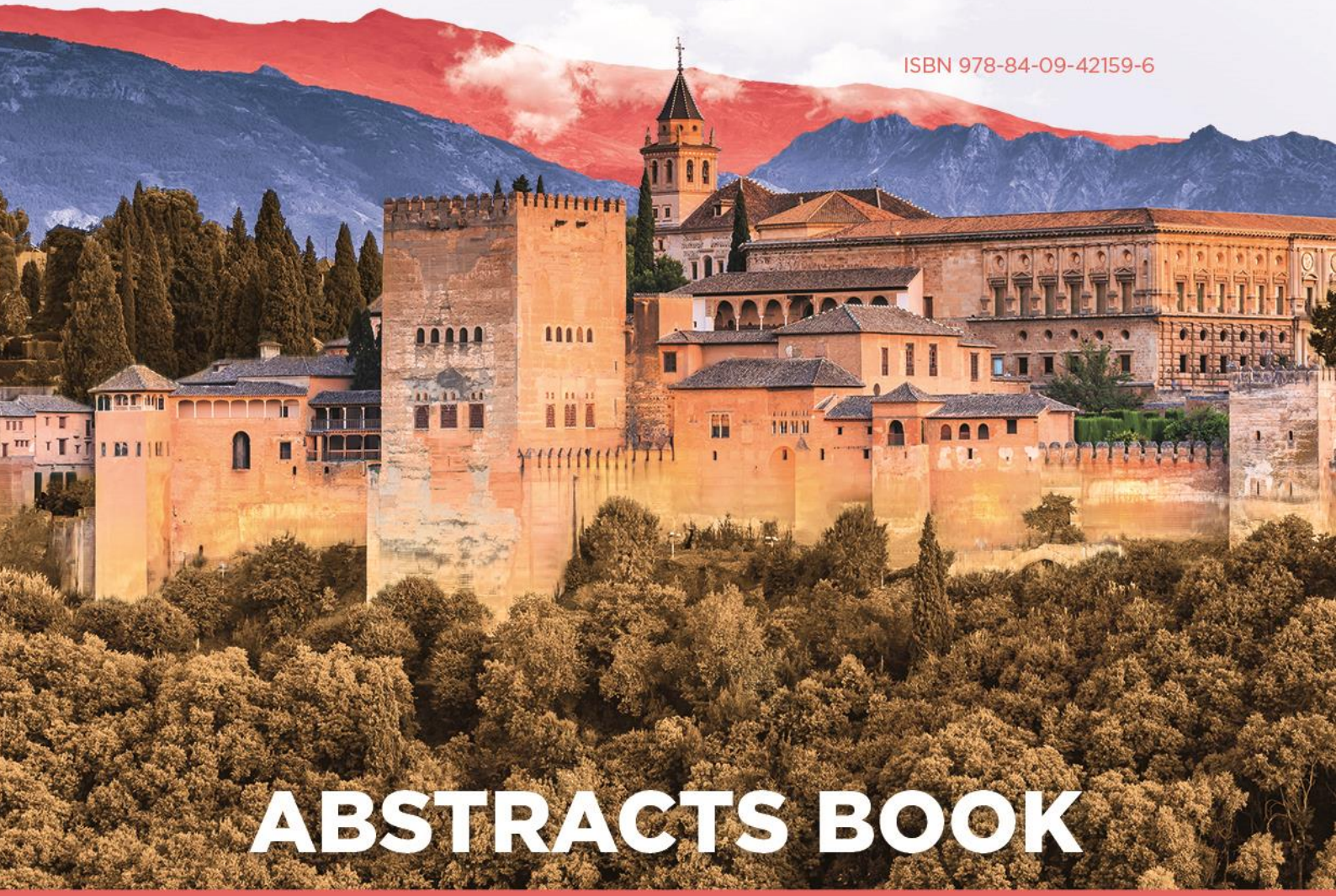
RSEQ

GRANADA 2022

27 - 30 DE JUNIO 2022

REAL SOCIEDAD ESPAÑOLA DE QUÍMICA

ISBN 978-84-09-42159-6



ABSTRACTS BOOK

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PP-011

BENZOFUSED TRI[8]ANNULENES VIA Pd-CATALYZED [2+2+2] CYCLOADDITION OF BENZOFUSED CYCLOOCTA-1,3,5-TRIEN-7-YNES

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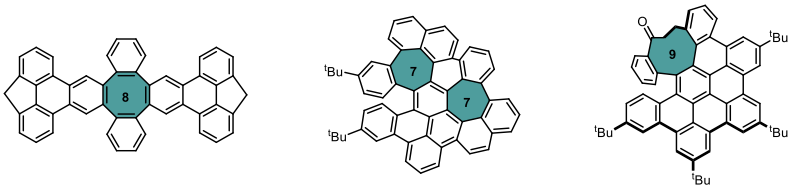
Keywords: *Cyclooctatrienynes, [2+2+2] Cycloaddition, Tri[8]annulene, Pd catalysts*

In the last decades, non-planar graphene-type aromatic systems have emerged as intriguing molecules due to their ability to modify and improve the electronic and optical properties of their planar analogous. In this context, trimerization of (cyclic) alkynes and arynes is being considered as a powerful tool to achieve curved PAHs with the incorporation of non-hexagonal rings.[1]



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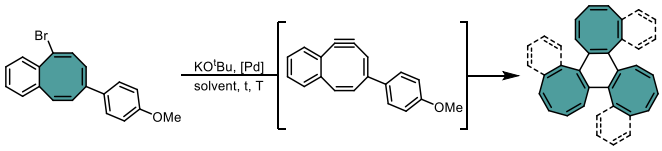
We have recently developed the formation of tub-shaped benzofused cyclooctatetraenes (benzoCOTs) through a halogen-radical ring opening of dihydrobiphenylenes.[2] The reactivity and nature of these non-benzenoid compounds have been poorly studied due to the lack of synthetic methodologies to achieve them.[3] While the trimerization of benzynes is well known, the trimerization of cyclooctatrienynes have been less studied.[4] We herein report on how the treatment of halogenated benzoCOTs with potassium *tert*-butoxide (generation of cyclooctatrienynes) in the presence of a Pd-catalyst undergo [2+2+2] cycloadditions to afford benzofused tri[8]annulene derivatives.



Acknowledgments

This work has received financial support from MECD (Project CTQ2017-87939R and PID2020-118048GB-100), the Xunta de Galicia (Centro singular de investigación de Galicia accreditation 2019-2022, ED431G 2019/03), and the European Union (European Regional Development Fund - ERDF). J.B.G thanks MECD for a predoctoral contract.

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