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Title:	Pd-Catalyzed Formal [3+3] Annulation of Benzylic gem-Diacetates: Synthesis of Various (Hetero)Arene-Fused Benzo[f]chromenes
Authors:	Kumar, Prashant (/jspui/browse?type=author&value=Kumar%2C+Prashant) Kumar, Pravesh (/jspui/browse?type=author&value=Kumar%2C+Pravesh) Venkataramani, Sugumar (/jspui/browse?type=author&value=Venkataramani%2C+Sugumar) Ramasastry, S. S. V. (/jspui/browse?type=author&value=Ramasastry%2C+S.+S.+V.)
Keywords:	Photochromic Properties Allylic gem-Diacetates Natural Products
Issue Date:	2022
Publisher:	ACS Publications
Citation:	ACS Catalysis, 12(2), 963-970
Abstract:	Palladium-catalyzed allylic alkylation reactions of allylic gem-diacetates are rarely explored. This work unveils an unusual chemical reactivity pattern of allylic gem-diacetates and establishes them as new prototypes to synthesize complex benzo[f]chromene systems. Under the reaction conditions, the diacetates behave as 1,3-dicationic equivalents and undergo a [3 + 3] heteroannulation with 2-naphthols (and meta-substituted phenols) to produce novel polycyclic chromenes possessing spiro-, tri-, and tetrasubstituted carbon centers. The versatility of the method is demonstrated in the synthesis of several chromene-based bioactive natural products. Further, interesting photochromic properties of the new classes of benzo[f]chromenes are also discovered.
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://doi.org/10.1021/acscatal.1c05450">https://doi.org/10.1021/acscatal.1c05450</a> ( <a href="https://doi.org/10.1021/acscatal.1c05450">https://doi.org/10.1021/acscatal.1c05450</a> ) <a href="http://hdl.handle.net/123456789/4452">http://hdl.handle.net/123456789/4452</a> ( <a href="http://hdl.handle.net/123456789/4452">http://hdl.handle.net/123456789/4452</a> )
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