

# Structure and Mechanism Revision of a Catalyzed Cyclization of Benzaldehyde Bearing Alkyne-Nitrile

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**ABSTRACT:** Pt(II)-catalyzed carbocyclization of benzaldehyde containing a keto-nitrile functionality resulted in the formation, respectively, of isochromenes and spiro-lactones instead of fused lactams and spiro-lactams as was previously reported. The reaction mechanism was proposed and the products were identified by multi-dimensional NMR, IR and X-ray analysis. The structure of these new products was also confirmed by their synthesis in an unambiguous manner using practical and short approaches.

