

Unveiling the Excited-State Dynamics and Coherent Vibrational Oscillations in Pyrene-Based Nanographene

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INTRODUCTION & AIM

Nanographenes (NGs) are a class of 2D nanomaterials based on graphene laterally confined on a spatial scale of a few nanometers, which possess unique optical properties due to quantum confinement and edge effects [1] potential applications in various fields. While many NGs adopt planar graphene-like structures, recent advancements in synthesis have enabled the production and study of structurally distorted nanographenes [2]. These distortions, profoundly affect their electronic and optical properties, enabling features absent in planar analogues.

METHOD

✓ Steady-state absorption

✓ Steady-state photoluminescence

✓ Time-resolved photoluminescence

✓ Pump-probe transient absorption (TA) spectroscopy

