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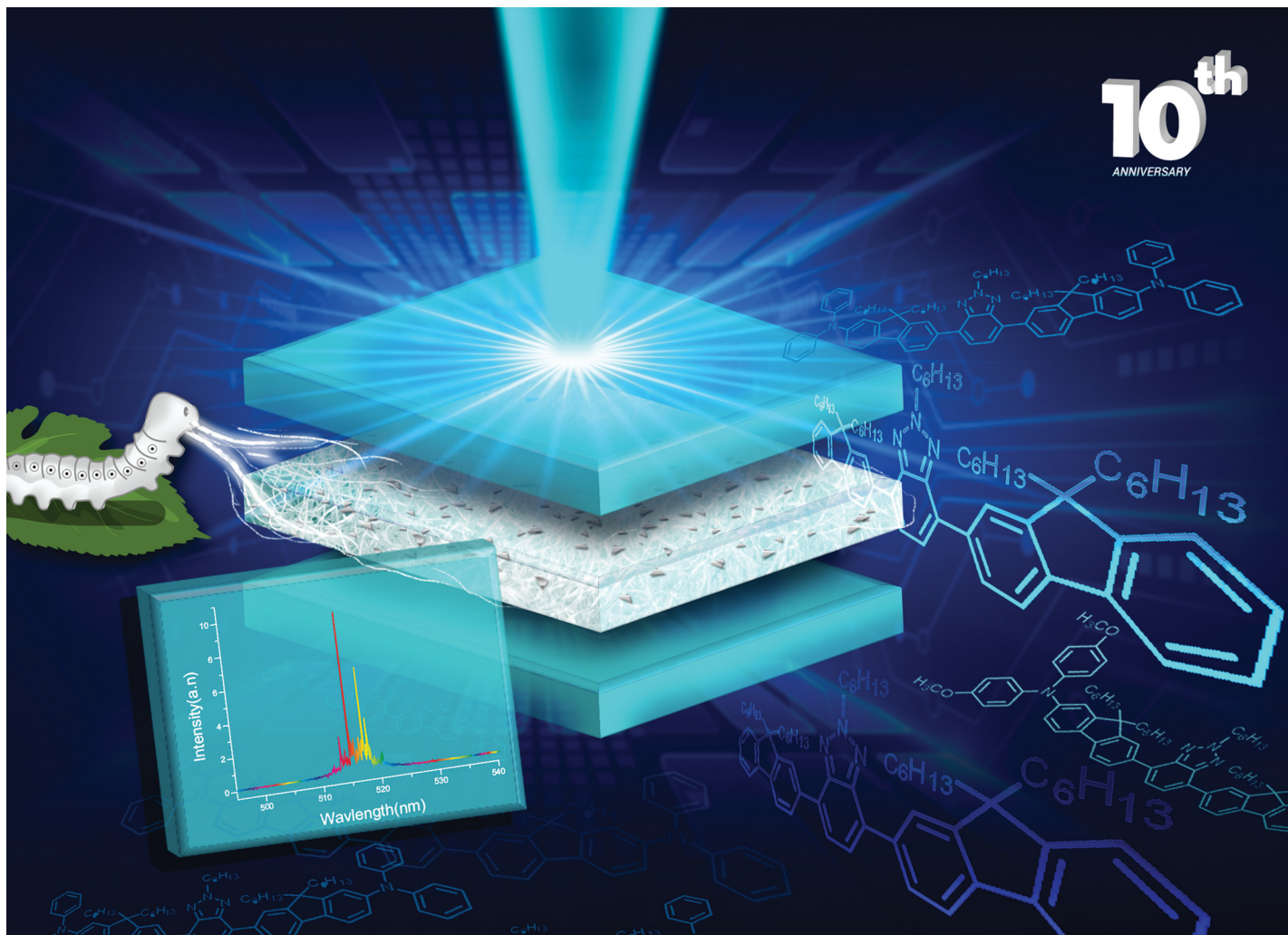


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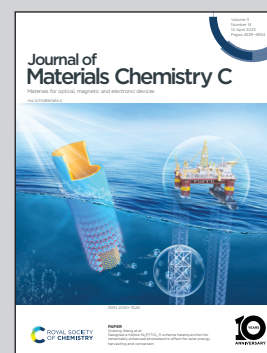


Showcasing the collaborative research from Advanced Nanophotonics Technology Laboratory, National Taipei University of Technology, and Photonic Materials Research Laboratory, National Central University, Taiwan.

Plasmonic random lasing and amplified spontaneous emission from donor-acceptor-donor dyes covered biocompatible silk fibroin film

Silk fibroin (SF), a kind of natural protein extracted from the *Bombyx mori* cocoon, has gained increasing attention for application in versatile optical devices due to its excellent optical, physical and mechanical properties. In this work, we demonstrated plasmonic random laser by applying a D-A-D organic dye on a biocompatible SF-film with embedded silver nanoprisms. This composite film possesses features of recurrent light-scattering and form loops, leading to observation of multiple emission spikes.

As featured in:



See Ja-Hon Lin, Tzu-Chau Lin *et al.*,
J. Mater. Chem. C, 2023, **11**, 4595.