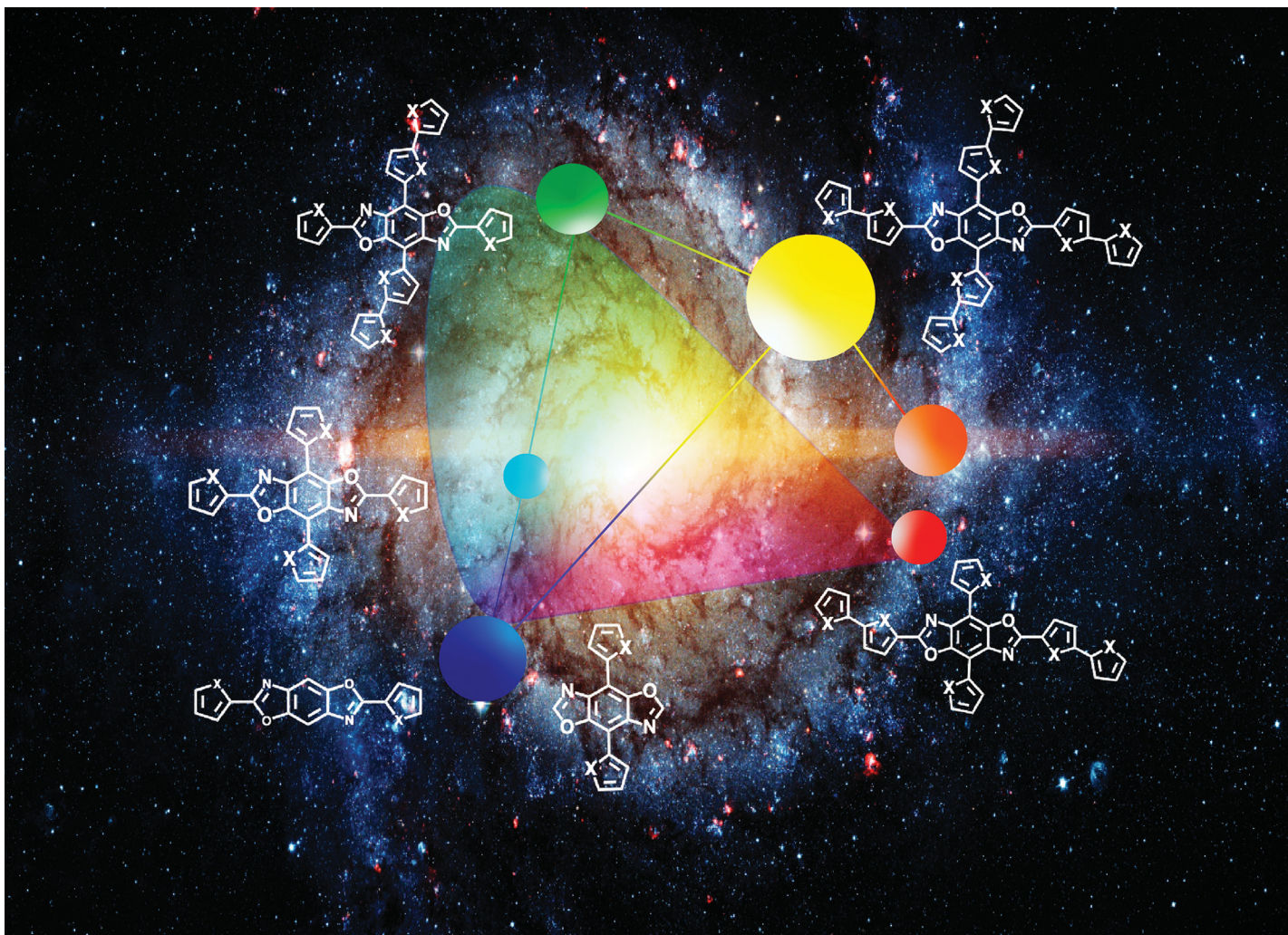


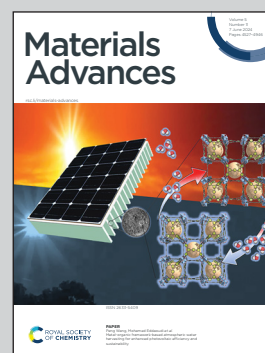


Showcasing research from Professor Jeffries-EL's laboratory, Department of Chemistry, Boston University, Boston, MA, USA.

Exploring color space: an investigation of heteroaryl-substituted benzobis[1,2-*d*:4,5-*d'*]oxazoles and their application in organic light-emitting diodes

Benzobisoxazole (BBO) is a versatile molecular template for developing OLED materials. Its unique structure allows for selective tuning of the frontier molecular orbitals, and emission wavelengths, by varying the groups attached to the BBO core. In this work a series of 24 thiophene and furan substituted BBO-based fluorescent materials were designed, synthesized, and utilized as dopants in OLED devices. The BBOs produced a wide array of colours spanning deep blue-to-orange. Furthermore, careful combination of blue and orange BBO dopants produced bright white-OLEDs.

As featured in:



See Malika Jeffries-EL *et al.*,
Mater. Adv., 2024, 5, 4689.