Showcasing collaborative research from the Suzhou University of Science and Technology, Suzhou, China, the University of Oxford, Oxford, UK, the Chinese University of Hong Kong, Hong Kong SAR, China, the Shanghai Jiao Tong University, Shanghai, China and Donghua University, China.

Controllable rotational inversion in nanostructures with dual chirality

Dai, Zhang, Goriely, and co-workers report the controllable rotational inversion in the helices with dual chirality: from gourd/cucumber tendrils to helical nanobelts. A peculiar rotational inversion of overwinding followed by unwinding, observed in some gourd and cucumber tendril perversions, not only exists in the transversely isotropic dual-chirality helical nanobelts, but also in the binormal/normal ones whose rectangular sections close to a square.

See Lu Dai, Li Zhang et al., Nanoscale, 2018, 10, 6343.