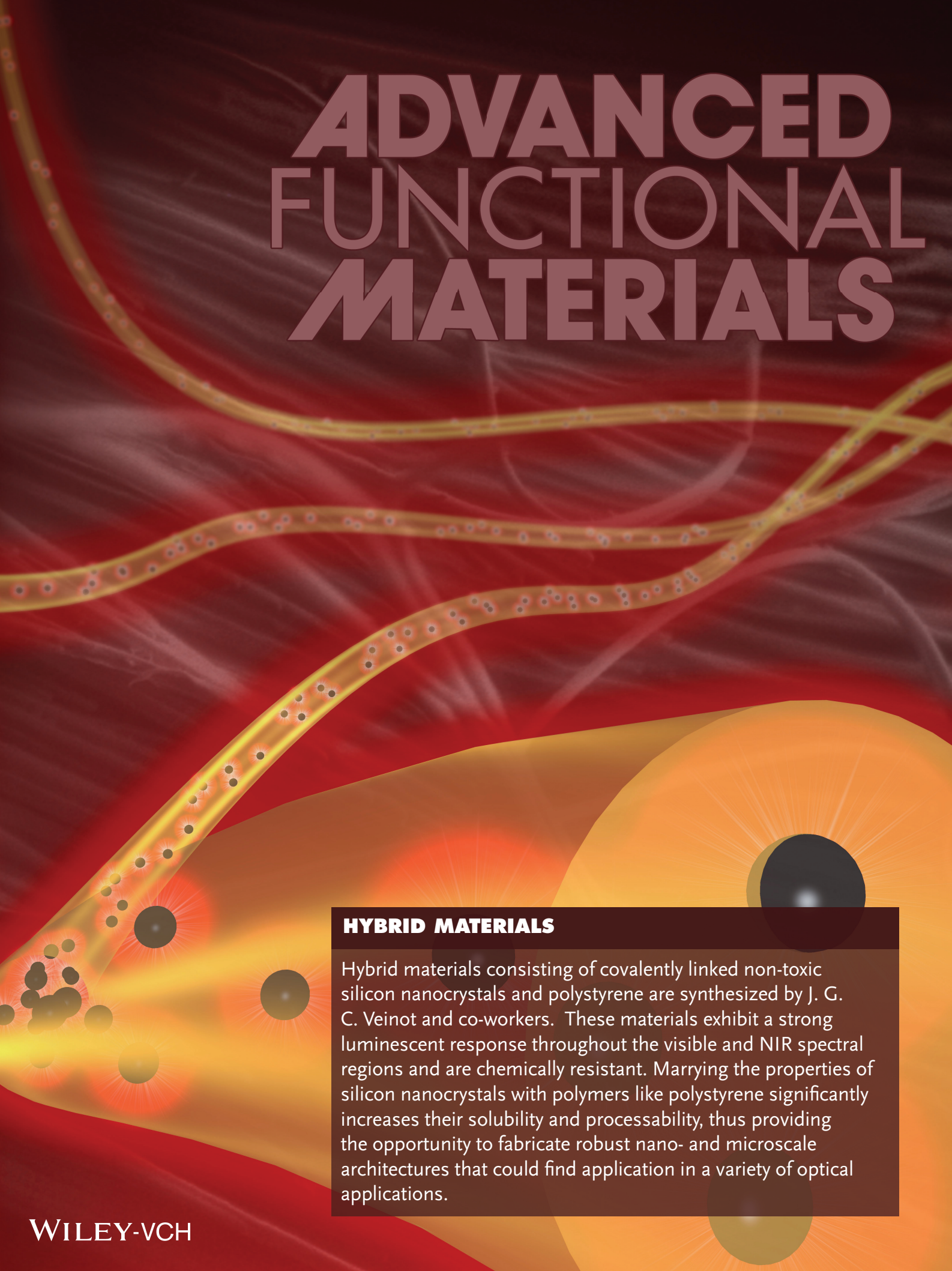

ADVANCED FUNCTIONAL MATERIALS

HYBRID MATERIALS

Hybrid materials consisting of covalently linked non-toxic silicon nanocrystals and polystyrene are synthesized by J. G. C. Veinot and co-workers. These materials exhibit a strong luminescent response throughout the visible and NIR spectral regions and are chemically resistant. Marrying the properties of silicon nanocrystals with polymers like polystyrene significantly increases their solubility and processability, thus providing the opportunity to fabricate robust nano- and microscale architectures that could find application in a variety of optical applications.

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