

# ADVANCED FUNCTIONAL MATERIALS

The background of the cover features a large, abstract composition. Two prominent spheres, one in the upper left and one in the lower right, are rendered in shades of blue and orange with a textured, almost crystalline surface. Numerous small, bright yellow, spherical particles are scattered throughout the scene, appearing to float or move between the larger spheres. The overall aesthetic is scientific and futuristic.

## BIOMATERIALS

On page 1871 Valentina Benfenati, Michele Muccini, and co-workers demonstrate that silk films act as biofunctional interfaces that support the adherence, neurite outgrowth, and intercellular communication of neurons. Silk films have huge potential for use in electronic devices aimed at stimulating neural network activity and peripheral nerve repair. The image depicts a synaptic process occurring on silk fibroin films from *Bombyx mori* cocoon.