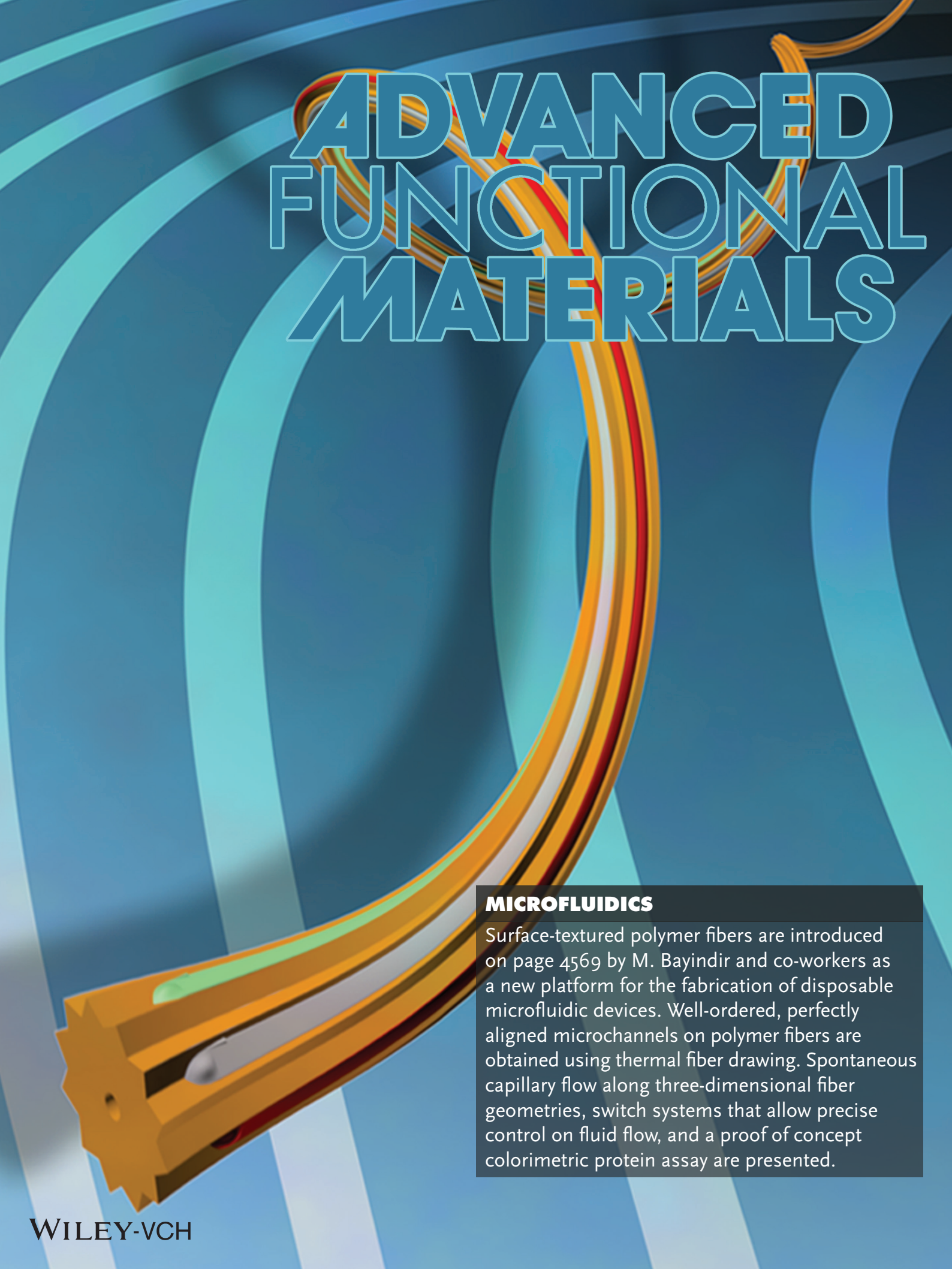


ADVANCED FUNCTIONAL MATERIALS

The background features a series of concentric, curved bands in shades of blue and teal. Overlaid on this is a 3D diagram of a fiber drawing process. A thick orange fiber is shown being pulled from a nozzle, with a thinner, multi-colored fiber (red, yellow, green, blue) emerging from its core. The fiber is curved, following the path of the background bands.

MICROFLUIDICS

Surface-textured polymer fibers are introduced on page 4569 by M. Bayindir and co-workers as a new platform for the fabrication of disposable microfluidic devices. Well-ordered, perfectly aligned microchannels on polymer fibers are obtained using thermal fiber drawing. Spontaneous capillary flow along three-dimensional fiber geometries, switch systems that allow precise control on fluid flow, and a proof of concept colorimetric protein assay are presented.