

## **High-sensitivity pressure sensor using a polymer-embedded FBG**

A new pressure sensor based on fiber Bragg gratings (FBG), is described with high-pressure sensitivity. The sensor is configured by embedding the FBG in a polymer-field aluminum casing with an opening on one side, which is exposed to pressure measurand. The measured pressure response is 0.06 nm/psi that is ~2700 times higher than the pressure response measured with a bare FBG. The linearity of the designed sensor is also shown to be good at pressures below 50 psi. This sensor has numerous potential applications in the area of low-pressure measurements.