



ElFys Oy

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ElFys Oy offers induced junction black silicon photodiodes with external quantum efficiency (EQE) greater than 96% over a broad range of wavelengths (250 to 950 nm). The collection efficiency has been enhanced by employing a surface nanostructuring technique combined with a conformal ALD alumina coating. The high EQE results from zero reflection of black silicon surface combined with no dead layer of induced junction. These innovations improve the absorption of light and collection of generated charge carriers. In the ultraviolet light region this means 2-3 times higher response compared to other silicon photodiodes optimized for UV detection. Similarly, the black silicon photodiodes give around 30% more signal in scintillator applications compared to standard photodiodes as the broad and high EQE improves overall response to emission spectrum of typical scintillator materials.

Website : www.elfys.fi