

Abstract Submitted
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Hot electron injection, vertical transport, and electrical spin detection in Silicon¹ IAN APPELBAUM, BIQIN HUANG, IGOR ALTFEDER, University of Delaware, DOUWE MONSMA, Cambridge Nanotech — In our devices, spin-dependent hot electron transport through metallic ferromagnetic thin films is used to polarize a charge current injected into the conduction band of Si, and then to analyze the remaining polarization after vertical drift. Our measurements of a clear spin-valve signature indicate substantial electron spin polarization after transport through several microns of Si.

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