

Abstract Submitted
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Spin Pumping into Topological Insulator Bi_2Te_3 FARIS BASHEER
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— A spin chemical potential bias can induce a spin polarized current by the exchange
interaction of a ferromagnet with the spin-momentum locking surface states of the
topological insulators. We carried out our ferromagnetic resonance experiment in a
 $\text{NiFe}/\text{Bi}_2\text{Te}_3$ heterostructure. Apart from the enhanced Gilbert damping constant,
we observed strong enhancement of the effective magnetic field at low temperatures.
The enhanced field decreased exponentially with increasing temperature at an energy
scale of 2.5 meV, representing the strength of the exchange coupling. We attribute
the enhanced field to the induced spin polarized current in the surface states of
 Bi_2Te_3 .

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