

MICROWAVE SIGNAL SOURCES  
BASED ON SPIN-TORQUE NANO-OSCILLATORS

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S u m m a r y

The spin-transfer torque (STT) effect provides a new method of manipulating the magnetization in nano-scale objects. According to the STT effect, a bias dc current traversing magnetic multilayers can transfer angular magnetic moments from one layer to another, which can give rise to the microwave dynamics of magnetization in the layer. This phenomenon can be used to develop novel microwave signal sources (MSSs). In this work, we review the main research results on MSSs based on the STT effect obtained at Taras Shevchenko National University of Kyiv and its foreign collaborating institutions in the recent years.