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标题: Vertical Graphene Base Transistor

作者: Mehr, W (Mehr, Wolfgang); Dabrowski, J (Dabrowski, Jarek); Scheytt, JC (Scheytt, J. Christoph); Lippert, G (Lippert, Gunther); Xie, YH (Xie, Ya-Hong); Lemme, MC (Lemme, Max C.); Ostling, M (Ostling, Mikael); Lupina, G (Lupina, Grzegorz)

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摘要: We present a novel graphene-based-device concept for a high-frequency operation: a hot-electron graphene base transistor (GBT). Simulations show that GBTs have high current on/off ratios and high current gain. Simulations and small-signal models indicate that it potentially allows terahertz operation. Based on energy-band considerations, we propose a specific material solution that is compatible with SiGe process lines.

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地址: [Mehr, Wolfgang; Dabrowski, Jarek; Scheytt, J. Christoph; Lippert, Gunther; Lupina, Grzegorz] IHP GmbH, D-15236 Frankfurt, Oder, Germany

[Xie, Ya-Hong] Univ Calif Los Angeles, Dept Mat Sci & Engn, Los Angeles, CA 90095 USA

[Lemme, Max C.; Ostling, Mikael] KTH Royal Inst Technol, S-10044 Stockholm, Sweden

通讯作者地址: Mehr, W (通讯作者),IHP GmbH, D-15236 Frankfurt, Oder, Germany

电子邮件地址: mehr@ihp-microelectronics.com

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