Abstracts

An Analytical Two-Dimensional Perturbation Method to Model Submicron GaAs MESFET's (Comments and Authors' Reply)

N. Kukreja, R.S. Gupta, E. Donkor and F.C. Jain. "An Analytical Two-Dimensional Perturbation Method to Model Submicron GaAs MESFET's (Comments and Authors' Reply)." 1993 Transactions on Microwave Theory and Techniques 41.3 (Mar. 1993 [T-MTT]): 543-544.

Using a two-dimensional perturbation method for GaAs MESFET's, the authors of the above paper, conclude that in the perturbed case, there is an increase in channel potential with channel position (along x-axis) by around 70 percent towards the drain end of the channel as compared to unperturbed case. However, their contention is contradicted by the relation in their paper which shows that at x = O and x = Lg, the potential for the perturbed and unperturbed case is the same. Also, the model is valid till the linear regime and not in the saturation regime, as has been pointed out in the following text.

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