

## INTERACTION OF DRIFTING ELECTRONS WITH A REMOTE DIPOLE

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### S u m m a r y

This article is devoted to the study of the interaction of drifting two-dimensional electrons and a remote molecule. The interaction of the two-dimensional electron gas (2DEG) with a remote dipole at three possible orientations of the latter is considered. The dispersion equation for joint oscillations of the 2DEG and a dipole is deduced, and the analytical and numerical studies of this equation are executed. For the orientations of the dipole perpendicularly to an applied electric field, the effect of a damping of oscillations is observed, and, at the orientation of the dipole in parallel to the field, the effect of a growth of oscillations of the system can arise. Different dependences of the mobility on the field strength affect differently the dependence of the instability increment on the concentration of electrons, which is related to different mechanisms of instability.