

SURFACE PHOTOVOLTAGE OF Au-C₆₀-Si STRUCTURES

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S u m m a r y

The methods of surface photovoltage, photoluminescence, AFM, and FTIR are applied to studying the Au-C₆₀-Si structure. The surface photovoltage kinetics was also investigated. It is shown that the photoluminescence and the surface photovoltage in the range 1.3–1.8 eV are caused by optical transitions with participation of singlet and triplet exciton states. It is established that the generation of surface photovoltage in the Au-C₆₀-Si structure is caused by the spatial separation of electron-hole pairs in the C₆₀ film.