Surface states of multilayered conducting heterostructures. GERARDO VAZQUEZ-FONSECA, Instituto de Fisica, UNAM, VICTOR MANUEL ORTEGA-MONTIEL, Universidad Nacional Autonoma de Mexico, MARCELO DEL CASTILLO-MUSSOT, Instituto de Fisica, UNAM, NELSON PORRAS-MONTENEGRO, Universidad del Valle — We discuss the existence of surface states of multilayered conducting heterostructures, doing an analogy among the equations which describe the physics of quantum-well structures and those which describe the physics of multilayered conducting heterostructures. The physics of infinite quantum-well structures has been studied extensively as well as semi-infinite quantum-well structures. The electromagnetic propagation of multilayered conducting heterostructures has been studied using different approximations. Within the hydrodynamic model of electron dynamics, we found an expression for the bulk and for the surface states of multilayered conducting heterostructures similar to those found in quantum-well structures.