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Optical absorption and photoluminescence of polycrystalline ZnO films obtained by thermal oxidation of Zn thin films deposited on amorphous SiO₂ (quartz) and (0001) surface of single crystalline GaSe lamellas have been investigated. The absorption edge of submicrometric ZnO films on quartz is determined by direct transitions corresponding to an optical band gap of 3.88 eV, at 300 K. For ZnO films with thickness between 1.5 and 10 μm , the absorption threshold is of excitonic nature. Photoluminescence of polycrystalline ZnO films on amorphous quartz reaches its maximum in the orange spectral range, while that of ZnO films on oriented single crystalline GaSe substrate covers the entire visible range.