

We propose a new method for designing of multilayer coatings which makes use of a specified reflectance of transmittance values over arrange of wavelength by using the evolutionary algorithms method .the crossover and mutation processes and adapted to depend directly on the value of merit function . the proposed method offers explicit for the thikness and the refractive index of each layer .comparing values our theoretical evolutionary algorithm with other theoretical results which using different mathematical formulas for crossover , mutation and selection led to obtain acceptable solutions for different types of coating designs.