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Calculation of optical matrix elements in carbon nanotubes made simple SERGUEI GOUPALOV¹, Jackson State University, ABBAS ZARIFI, Yasouj University, Iran, THOMAS PEDERSEN, Aalborg University, Denmark — We have derived analytical expressions for dipole matrix elements describing interband optical transitions in carbon nanotubes for arbitrary light polarization and nanotube chiralities. We studied how the dependences of the optical matrix elements on the quantum numbers of the electronic states are affected by the time reversal symmetry.

¹also with Ioffe Institute

Serguei Goupalov Jackson State University

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