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### **Electron Impact Single and Double Ionization of Helium calculated with Generalized Sturmian Functions**

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The single and double ionization of He induced by the collision of high incident energy electrons still remains a challenging problem for theoreticians. Several ab initio calculations (see [1]) of excitation-ionization disagree with each other and with the experimental data [2]. A similar situation is found for the double ionization of He [3]. In this talk, we will provide cross sections for both processes calculated by using the Generalized Sturmian Functions method [4,5]. Comparisons with experimental data [6] and with other calculations will be presented.

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[5] G. Gasaneo et al, Accepted in Adv. Quantum Chem. (2013).

[6] A Lahmam-Bennani et al, J. Phys. B 42 165201 (1999); A. Kheifets et al, J. Phys. B 32, 5047 (1999).

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