Modern Physics (PHY 3305) Lecture Notes

HomeworkAssignment009

SteveSekula, 8 April 2010 (created 7 April 2010)

Expectations for the quality of your handed-in homework are available at http://www.physics.smu.edu/sekula/phy3305/homework.pdf. Failure to meet these guidelines will result in loss of points as detailed in that document. This assignment covers material from Harris Ch. 11.1-11.6. It is worth 100 points.

no tags

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HARRIS, *CH11-13* (10 Points)
HARRIS, *CH11-14* (10 Points)
HARRIS, *CH11-21* (20 Points)
HARRIS, *CH11-23* (5 Points)
SS-12 (5 Points)
HARRIS, *CH11-46* (40 Points) *NOTE: this is a challenging problem*
HARRIS, *CH11-54* (10 Points)

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Problem *SS-12*

As a "second part" of Harris, *CH11-23*, calculate the mass of carbon-12 using the semiempirical binding energy formula. Comment on how this compares to the actual mass of the carbon-12 atom.