Determinación del gas contenido en Tiratrón 2D21, mediante la obtención de la primer energía de ionización.

Pérez Flores Julio Alfonso*
Facultad de Ciencias, Universidad Nacional Autónoma de México.†
(Dated: 25 de noviembre de 2024)

Keywords: 2D21 Tyratron, first ionizing energy, Child-Langmuir law.

I. INTRODUCCIÓN

A. Derivación ley de Stefan-Boltzmann.

II. MÉTODO.

La figura **??** muestra la configuración del tiratrón, así como las secciones dentro donde se registra el voltaje y la corriente asociados a la aceleración de los electrones desprendidos por fenómeno termoiónico

III. RESULTADOS.

IV. CONCLUSIONES.

V. APÉNDICE A: MEDICIONES.

[1] European Space Agency (ESA), "Blackbody radiation what is thermal – or black body – radiation?." https://sci.esa.int/web/education/-/48986-blackbody-radiation, 2019. Accessed: 2024-11-2.
[2] S. J. Ling, J. Sanny, and W. Moebs, "6.1 blackbody radiation." https://openstax.org/books/university-physics-volume-3/pages/6-1-blackbody-radiation, Sept. 2016. Accessed: 2024-11-3.
[3] J. J. Condon and S. M. Ransom, "mathematical derivations - essential radio astronomy." https://www.cv.nrao.edu/~sransom/web/A2.html, 2018. Accessed: 2024-11-2.
[4] P. Haggstrom, "Deriving the Stefan-Boltzmann law from planck's law." https://gotohaggstrom.com/Deriving%20the%20StefanBoltzmann%20law%20from%20Plancks%20law.pdf, 2023. Accessed: 2024-11-2.
[5] V. Bityukov, Y. Khudak, and N. Gusein-Zade, "Analytical derivation of the stefan–boltzmann law for integral radiance from planck's law for spectral radiance," *Bulletin of the Lebedev Physics Institute*, vol. 45, pp. 46–50, 02 2018.
[6] J. Tatum, "2.10: Derivation of wien's and stefan's laws." https://phys.libretexts.org/Bookshelves/Astronomy__Cosmology/Stellar_Atmospheres_(Tatum)/02%3A_Blackbody_Radiation/2.10%3A_Derivation_of_Wien's_and_Stefan's_Laws, Apr. 2017. Accessed: 2024-11-2.
[7] T. Vahabi, C. Lee, M. Nardin, E. Horsley, and R. Serbanescu, "Black body radiation." https://www.physics.utoronto.ca/~phy224_324/LabManuals/BlackbodyRadiation.pdf, 2023. Accessed: 2024-11-2.
[8] Physics and Math Lectures, "Deriving wien's law," 2020.
[9] B. Das, "Obtaining wien's displacement law from planck's law of radiation," *Phys. Teach.*, vol. 40, no. 3, pp. 148–149, 2002.
[10] S. J. Ling, W. Moebs, and J. Sanny, "9.3 resistivity and resistance." https://openstax.org/books/university-physics-volume-2/pages/9-3-resistivity-and-resistance, Oct. 2016. Accessed: 2024-11-4.
[11] P. P. Urone and R. Hinrichs, "11.2 heat, specific heat, and heat transfer." https://openstax.org/books/physics/pages/11-2-heat-specific-heat-and-heat-transfer, Mar. 2020. Accessed: 2024-11-4.
[12] A. Oliva, R. Maldonado, E. Díaz, and A. Montalvo, "A high absorbance material for solar collectors' applications," *Materials Science and Engineering Conference Series*, vol. 45, pp. 2019–, 06 2013.
[13] M. Wellons, "The Stefan-Boltzmann law." https://physics.wooster.edu/wp-content/uploads/2021/08/Junior-IS-Thesis-Web_2007_Wellons.pdf, 2007. Accessed: 2024-11-2.
[14] PubChem, "Copper." https://pubchem.ncbi.nlm.nih.gov/compound/Copper. Accessed: 2024-11-4.
[15] S. R. O. Aletba, N. Abdul Hassan, R. Putra Jaya, E. Aminudin, M. Z. H. Mahmud, A. Mohamed, and A. A. Hussein, "Thermal performance of cooling strategies for asphalt pavement: A state-of-the-art review," *Journal of Traffic and Transportation Engineering (English Edition)*, vol. 8, no. 3, pp. 356–373, 2021.
[16] D. Bonyuet, "Descripción y tablas de emisividad." https://www.academia.edu/23762566/Descripci%C3%B3n_y_tablas_de_Emisividad?auto=download. Accessed: 2024-11-3.
[17] H. D. Kambezidis, "The solar resource," in *Reference Module in Earth Systems and Environmental Sciences*, Elsevier, 2020.
[18] ThermoWorks, "Infrared emissivity table." https://www.thermoworks.com/emissivity-table/?srsltid=AfmBOop4EzXC_eix3ROUrO7DqWbj9DgVS1O4LlzT5stI7YE2lyR28fxP, 2024. Accessed: 2024-11-3.

* julio_perez@ciencias.unam.mx

† Reporte práctica Laboratorio Contemporánea I, Semestre 2025-1.