The Optical Absorption Coefficient of Maize Grains Investigated by Photoacoustic Spectroscopy

C. L. Rodríguez-Paez and Aquiles Carballo-Carballo
Departamento de Mejoramiento de Semillas, COLPOS Texcoco, México, DF, México

Flavio Arturo Dominguez-Pacheco [C, S] and Claudia Hernández Aguilar
SEPI-ESIME-Ingenieria de Sistemas, Instituto Politecnico Nacional, México, DF, México
fartur@hotmail.com

Alfredo Cruz Orea
Physics Department, Centro de Investigación y de Estudios Avanzados del IPN, México, DF, México

Ernesto Moren-Martinez
Unidad de Investigación en Granos y Semillas FESC, UNAM, México, DF, México

Ricardo Rico-Molina
Ingeniería en Sistemas Inteligentes, UAEM Nezahualcóyotl, México, DF, México

In the industry of dough and tortilla is important to characterize the color of the maize (*Zea mays* L.) grain, as it is one of the attributes that directly affect the quality of "tortilla" consumed by the population. For this reason, the availability of alternative techniques for assessing and improving the quality of grain is very welcome [1, 2]. Photoacoustic spectroscopy (PAS) has proven to be a useful tool to characterize maize grain. So, the objective of the present study was to determine the optical absorption coefficient β of maize grain used to make "tortilla" from two regions of Mexico: a) "Montecillo Texcoco" productive cycle (2012-2013), b) "Sinaloa – Guasave" productive cycle (2013-2014). Traditional reflectance measurements, physical characteristics of the grain and nutrient content was also calculated. The experimental results show different behaviors for maize grains.

References

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