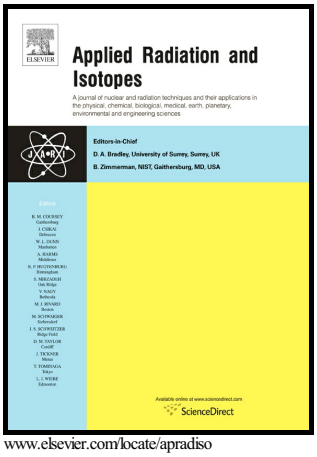

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Imaging and analysis of thin structures using positron emission tomography: thin phantoms and *in vivo* tobacco leaves study

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Abstract

In this work, a novel approach utilizing the designed phantoms imitating the plant tissues was applied for the evaluation of the relationships between the parameters of the prepared phantoms and/or quantitative variables obtained within the PET analysis. The microPET system developed for animal objects and approaches used made it possible to obtain the quantitative data in the form of ^{18}F radioactivity as well as the glucose (in μg) accumulated in leaf tissues within the dynamic *in vivo* study.

Keywords: PET; 2-[^{18}F]FDG; leaf; uptake; solute transport; dynamic; 2D/3D imaging; phantom; principal component analysis

INTRODUCTION

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