

ABSTRACT SUBMISSION:

Deadline for Submission of Abstract: **Nov 30, 2018**

The abstract should come in a Word document format

Text - 10pt New Times Roman Font, justified

Title - 10pt New Times Roman Font, capitalized, centered

Affiliations - 9pt New Times Roman Font, italic, centered

Figures should be in "picture format" (i.e. gif, tiff, jpeg).

The figures must be "to the final printed size".

The reason for the latter is that scaling a figure down very often makes labels so small that they are unreadable.

MS Word, Excel and other formats apart from above mentioned should not be acceptable.

Equations should be done either in a standard MS Word equation editor or pasted as a picture (in the formats as per above), to the final printed size.

Submit abstract as an attachment in an email to anchali.kris@gmail.com

FULL PAPER TEMPLATE: Date Due Dec 31, 2018

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Papers must not exceed four (4) pages.

IMPROVED MOSFET DOSIMETRY FOR RADIOTHERAPY

Name Surname¹, Name Surname¹, Name Surname², Name Surname³

¹*Department of Medical Radiation Physics (MRP), University of Bangkok*

²*Chiangmai University*

³*Department of Medical Sciences, Ministry Of Health, Thailand*

Introduction: MOSFETs have become an increasingly popular radiation dosimeter for many applications in radiation therapy and dosimetry. Various MOSFET designs have shown strong angular dependence, limiting their clinical application as dosimeters. We have developed a unique MOSFET design with an optimised packaging for use as an in-vivo dosimeter for High Dose Rate (HDR) prostate brachytherapy and as a skin dosimeter for surface dose measurements in external beam radiotherapy.

Methods: Angular and surface dose properties of this device were obtained and compared to that of a commercially available MOSFET. Angular dose distribution measurements were performed using a Nucletron microSelection PDR Ir-192 stepping source and afterloading facility in conjunction with a perspex phantom and the Nucletron PLATO Treatment Planning System. Surface dose measurements were carried out on both MOSFET designs using 6MV photons from a Varian 2100C linear accelerator. These measurements were compared to results from an Attix chamber.

Results: The CMRP MOSFET gives an isotropic response ($\pm 4\%$) over all angles of incidence. The angular response of the commercial MOSFET varies significantly ($\pm 14\%$). The CMRP MOSFET also measures skin doses with greater accuracy than the commercial MOSFET.

Discussion: The CMRP developed MOSFET provides several advantages over the commercial MOSFET, including minimal angular dependence and greater accuracy for surface dose measurements. The optimised packaging has resulted in a reduced sized, versatile dosimeter, suitable for both in-vivo dosimetry and skin dosimetry.

Conclusions: The CMRP MOSFET has many desirable characteristics over the commercially available MOSFET, including minimal angular dependence and reduced size, suitable for real-time in-vivo dosimetry for high dose rate prostate brachytherapy as well as surface dosimetry for external beam radiation. This MOSFET serves as a useful tool to the radiation oncologist and will help improve the quality of life for patients after treatment.

Proceedings— Instructions for Authors

A.B. Authorsurname¹, C. Coauthorsurname² and D.E. Othercoauthorsurname¹

¹ Institution/Department, Affiliation, City, Country

² Institution/Department, Affiliation, City, Country

Abstract— Instructions for preparing papers for the 5th SEACOMP are presented. They are intended to guide the authors in preparing the electronic version of their paper. Only papers prepared according to these instructions will be published in the Proceedings. Provide an abstract of your paper no longer than 400 words.

Keywords— Enter up to five keywords and separate them by commas

I. INTRODUCTION

These are the instructions for preparing papers for the 5th SEACOMP Proceedings. English is the official language. Please, do not forget to prove the spelling with your spell checker. Set the language to English (U.S.). Read the instructions in this sample paper carefully before typing.

The papers should be submitted in their final form. The publisher will perform no further adjustments. In the Proceedings the papers will be reproduced directly from the files submitted by the authors. The authors must submit their paper in MS Word format as an e-mail attachment to the 5th SEACOMP secretariat (bsjseacomp@yahoo.com).

Detailed instructions for preparing the papers are listed in chapter II. WRITING THE PAPER.

II. WRITING THE PAPER

A. Descriptive rules

Paper Size: Select the letter paper size (8.5" x 11" inches) in Page Setup in your Word Processor. Only this paper size can be accepted.

Length: The maximum document size for regular and student competition papers is four pages. Abstracts only will not be published.

Margins: Leave 25 mm margin at the top, 40 mm at the bottom, 19 mm on the left and 14 at the right sides. The page layout should be "two opposing pages".

Page Layout: Type the paper in two columns 85,5 mm wide with a space of 6 mm between the columns. Each column should be left and right justified.

Fonts: Use Roman typeface (e.g. Times, Times New Roman) and single line spacing throughout the paper.

Title: The title should be no longer than two lines. Avoid unusual abbreviations. Center the title (14 point bold). Authors' names and affiliations (Institution/Department, City, Country) shall span the entire page. Leave one blank line (8 point) after the title, one blank line (10 point) after the authors' names, and affiliations. Leave one blank line (20 point) between authors info and the beginning of the paper.

Abstract: Provide an abstract of the paper (9 point bold) no longer than 300 words.

Style: Use separate sections for introduction, materials and methods, results, discussion, conclusions, acknowledgements (when appropriate), and references.

Headings: Enumerate Chapter Headings by roman numbers (I., II., etc.) For Chapter Headings use ALL CAPS. First letter of Chapter Heading is font size 12, regular and other letters are font 8 regular style. Leave one blank line (20 point) before and one blank line (10 point) after each Chapter Heading. *Subchapter Headings* are in font 10, italic. Enumerate Subchapter Headings by capital letters (A., B., etc.) Leave one blank line (15 point) before and one blank line (7,5 point) after each Subchapter Heading.

Body Text: Use Roman typeface (10 point regular) throughout. Only if you want to emphasize special parts of the text use Italics. Start a new paragraph by indenting it from the left margin by 4 mm (and not by inserting a blank line). Font sizes and styles to be used in the paper are summarized in Table 1.

Tables: Insert tables where appropriate (as close as possible to where they are mentioned in the text). Prefer positioning them at the top or at the bottom of the column. If necessary, span them over both columns. Enumerate them consecutively using Arabic numbers (e.g. Table 1, Table 2,..) and provide a caption for each table. Use font 10 for table captions. Place captions above the tables. Use font 8 for table legends and data. Leave one blank line before (15 point) and one after (5 point) the captions. Please keep in mind the distinction between tables and figures: tables only

contain alphanumerical characters and no graphical elements.

Table 1 Font Sizes and Styles

Item	Font Size	Font Style
Title	14	Bold
Author	12	Regular
Authors' info	9	Regular
Abstract	9	Bold
Keywords	9	Bold
Body text	10	Regular
Chapter Heading, 1 st letter	12	Regular
Chapter Heading, other letters	8	Regular
Subchapter Heading	10	Italic
Table Caption	8	Regular
Table legend	8	Bold
Table data	8	Regular
Figure Captions	8	Regular
Acknowledgment	8	Regular
References	8	Regular
Author's address	8	Regular

Figures: Insert figures where appropriate (as close as possible to where they are mentioned in the text). Prefer positioning them at the top or at the bottom of the column. If necessary, span them over both columns. Enumerate them consecutively using Arabic numbers (e.g. Fig. 1, Fig. 2,...) and provide a caption for each figure. Use font 10 for figure captions. Place captions beneath figures. Leave one blank line before (15 point) and one after (5 point) the captions. Please keep in mind the distinction between tables and figures: tables only contain alphanumerical characters and no graphical elements. Do not use characters smaller than 8 points within figures. Figures are going to be reproduced in color in the electronic versions of the Proceedings, but when choosing the graph color, keep in mind that they will be reproduced in print too, not using color print. Figure 1 is intended to illustrate the positioning of a figure and shows the logo of the Department of Health.

Equations: For inserting equations, use the Equation Editor. Enumerate the equations using Arabic numbers in brackets on the right hand side of the equation.

Itemizing: In case you need to itemize parts of your text, use either bullets or numbers, as shown bellow:

- First item
 - Second item
1. Numbered first item
 2. Numbered second item

References: Number references in their text citation order by an Arabic number in square brackets. List these in numerical order at the end of your paper under the heading 'REFERENCES' as in the last part of this sample paper.

III. CONCLUSIONS

Send your papers only in electronic form. Papers *must be uploaded* before the deadline. After a paper is accepted for oral or poster presentation, one of the authors must complete a registration form and pay the appropriate fees before the paper can be published in the Proceedings. Please pay attention to the registration deadline.

ACKNOWLEDGMENT

Format the Acknowledgment and References headlines without numbering.

REFERENCES

The list of References should only include papers that are cited in the text and that have been published or accepted for publication. Citations in the text should be identified by numbers in square brackets and the list of references at the end of the paper should be numbered according to the order of appearance in the text. Examples of citations for Journal articles [1], books [2], the Digital Object Identifier (DOI) of the cited literature (which should be added at the end of the reference in question if available) [3], Proceedings papers [4] and electronic publications [5].

Cited papers which have been accepted for publication should be included in the list of references with the name of the journal and marked as "in press". The author is responsible for the accuracy of the references. Journal titles should be abbreviated according to Engineering Index Inc. References with correct punctuation.

1. Smith J, Jones M Jr, Houghton L et al. (1999) Future of health insurance. N Engl J Med 341:325-329
2. South J, Blass B (2001) The future of modern genomics. Blackwell, London
3. Smith J, Jones M Jr, Houghton L et al (1999) Future of health insurance. N Engl J Med 341:325-329 DOI 10.1007/s002149800025
4. Lock I, Jerov M, Scovith S (2003) Future of modeling and simulation, IFMBE Proc. vol. 4, World Congress on Med. Phys. & Biomed. Eng., Sydney, Australia, 2003, pp 789-792
5. IFMBE at <http://www.ifmbe.org>

Address of the corresponding author:
 Author:
 Institute:
 Street:
 City:
 Country:
 Email: