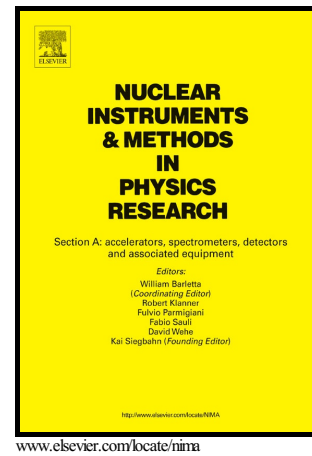


Author's Accepted Manuscript

Review of an initial experience with an experimental spectral photon-counting computed tomography system

Salim Si-Mohamed, Daniel Bar-Ness, Monica Sigovan, David P. Cormode, Philippe Coulon, Emmanuel Coche, Alain Vlassenbroek, Gabrielle Normand, Loic Bousel, Philippe Douek



PII: S0168-9002(17)30462-X
DOI: <http://dx.doi.org/10.1016/j.nima.2017.04.014>
Reference: NIMA59802

To appear in: *Nuclear Inst. and Methods in Physics Research, A*

Received date: 24 March 2017
Accepted date: 10 April 2017

Cite this article as: Salim Si-Mohamed, Daniel Bar-Ness, Monica Sigovan, David P. Cormode, Philippe Coulon, Emmanuel Coche, Alain Vlassenbroek, Gabrielle Normand, Loic Bousel and Philippe Douek, Review of an initial experience with an experimental spectral photon-counting computed tomography system: *Nuclear Inst. and Methods in Physics Research, A* <http://dx.doi.org/10.1016/j.nima.2017.04.014>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Review of an initial experience with an experimental spectral photon-counting computed tomography system

Salim Si-Mohamed^{1,2*}, Daniel Bar-Ness², Monica Sigovan², David P. Cormode³, Philippe Coulon⁴, Emmanuel Coche⁵, Alain Vlassenbroek⁵, Gabrielle Normand⁶, Loic Boussel^{1,2}, Philippe Douek^{1,2}

¹Radiology Department, Hospices Civils de Lyon, France.

²University Claude Bernard Lyon 1, CREATIS, CNRS UMR 5220, INSERM U1206, INSA-Lyon, France

³Department of Radiology, University of Pennsylvania, Philadelphia, PA, USA.

⁴CT Clinical Science, Philips, Suresnes, France.

⁵Department of Radiology, Clinique Universitaire Saint Luc, Bruxelles, Belgique

⁶Department of Nephrology, Hospices Civils de Lyon, France.

salimaymeric@gmail.com

salim_sidi@icloud.com

***Correspondence to:** CHU cardiologique Louis Pradel; Radiology Department; 59 Boulevard Pinel, 69500 Bron. Telephone number: 04 72 35 73 35; Fax number: 04 72 35 72 91

Abstract

Spectral photon-counting CT (SPCCT) is an emerging X-ray imaging technology that extends the scope of available diagnostic imaging tools. The main advantage of photon-counting CT technology is better sampling of the spectral information from the transmitted spectrum in order to benefit from additional physical information being produced during matter interaction, including photo-electric and Compton effects, and the K-edge effect. The K-edge, which is

Download English Version:

<https://daneshyari.com/en/article/8167938>

Download Persian Version:

<https://daneshyari.com/article/8167938>

[Daneshyari.com](https://daneshyari.com)