Semiconductor Detectors
Posters 1-36

1. Performance and Longevity Studies of the Silicon Detectors of the CDF Experiment, Alexander Sukhanov, University of Florida
2. The Effect of the Dielectric Layer Thickness and Permittivity on Spectral Performance of CdZnTe Gamma Ray Spectrometers, Alireza Kargar, S.M.A.R.T. Laboratory, Kansas State University
3. Silicon on Insulator Radiation Detectors for Microdosimetry and Other Applications, Anatoly B. Rosenfeld, University of Wollongong
5. Studies of the Silicon Neutron Sensor Characteristics, Igor E. Anokhin, Institute for Nuclear Research, Kiev, Ukraine
6. Characterization of the X-Ray Spectroscopic Performance of a Very Large Area Silicon Drift Detector, Gianluigi Zampa, INFN Sezione di Trieste
7. Performance of 3-D CdZnTe Detectors using BNL-H3D ASIC Readout System, Cedric Herman, University of Michigan, Nuclear Engineering and Radiological Sciences
9. Neutron Responses of 6H-SiC and 4H-SiC Semiconductor Detectors for Fast Neutrons, Jang Ho Ha, Korea Atomic Energy Research Institute
10. Fluence Dependent Recombination Characteristics in Heavily Irradiated by Neutrons and Protons Si for Ionizing Radiation Detectors, Juozas Vaitkus, Vilnius University; Eugenijus Gaubas, presenting
11. High-Resolution Electron-Track Measurements for Advanced Compton Imaging, K. Vetter, UC Berkeley; B. Plimley, presenting
12. Characterization of Amorphous Selenium for Medical Imaging and Nuclear Detectors, Krishna C. Mandal, EIC Laboratories, Inc.
13. MOVPE Growth of CdTe on Si Substrates for Gamma Ray Detector Fabrication, Madan Niraula, Nagoya Institute of Technology
14. The Long Term Stability of the TlBr Detector Using Guard Ring and Without Surface Etching Treatment, Margarida Mizue Hamada, Instituto de Pesquisas Energeticas e Nucleares (IPEN/CNEN-SP, Brazil)
15. An Investigation of Nanocrystalline Semiconductor Assemblies as a Material Basis for Ionizing-Radiation Detectors, Mark Hammig, University of Michigan; Kihyun Kim, presenting
17. Composite Polycrystalline Boron Nitride, Boron Carbide and Lithium Fluoride Based Alpha and Neutron Detectors, Michael Roth, The Hebrew University of Jerusalem; Michael Schieber, presenting
19. Irradiation Studies with the CMS Forward Pixel Detector and Upgrade Proposal for SLHC, Ping Tan, Fermilab; Simon Kwan (Fermilab), presenting
20. Fast Neutron Detection With Silicon Carbide Semiconductor Radiation Detectors, Robert W. Flammang, Westinghouse Science & Technology Department, Pittsburgh, PA
21. Ion Impact Detection and Micromapping with a SDRAM for IEEM Diagnostic and Applications, Serena Mattiazzo, University of Padova, Dept. of Physics and INFN Padova; Piero Giubilato, presenting
<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors/Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Characterization of Pixellated TlBr Radiation Detectors for Gamma-Ray Spectroscopy</td>
<td>Suzanne Nowicki, University of Michigan</td>
</tr>
<tr>
<td>24</td>
<td>Correlation of Proton and Photon Induced Conductivity of a Poly(π-phenylene vinylene) Derivative</td>
<td>Tiffany MS Wilson, Sandia National Laboratories (SNL)</td>
</tr>
<tr>
<td>26</td>
<td>Effects of Point Defects on the Electrical Properties of Aluminum Antimonide -- a First Principles Investigation</td>
<td>Vincenzo Lordi, Lawrence Livermore National Lab (LLNL)</td>
</tr>
<tr>
<td>27</td>
<td>Effects of Depth Resolution on Spectroscopic Performance of Pixellated CdZnTe Detectors</td>
<td>Willy Kaye, University of Michigan</td>
</tr>
<tr>
<td>28</td>
<td>Characterization of Massive Silicon Detectors for Low Energy Events at Liquid Helium Temperature</td>
<td>C Braggio, University of Padova</td>
</tr>
<tr>
<td>29</td>
<td>Neutron Damage Effects in SSB and CZT Radiation Detectors for Spent Fuel Facility Monitoring</td>
<td>Han-Soo Kim, Korea Atomic Energy Research Institute (KAERI)</td>
</tr>
<tr>
<td>30</td>
<td>TlBr Stack Detectors for Gamma-ray Spectroscopy</td>
<td>Keitaro Hitomi, Tohoku Institute of Technology</td>
</tr>
<tr>
<td>31</td>
<td>Gamma-ray Response of Cl-doped Semi-Insulating CdMnTe Crystal</td>
<td>KiHyun Kim, Korea University</td>
</tr>
<tr>
<td>32</td>
<td>Characterization of a Large Volume CdZnTe Coplanar Detector</td>
<td>Mohini Rawool-Sullivan, Los Alamos National Laboratory (LANL)</td>
</tr>
<tr>
<td>33</td>
<td>Investigation of the Importance of the Contact in Performance of CZT Radiation Detectors at Various Temperatures</td>
<td>Se-Hwan Park, Korea Atomic Energy Research Institute (KAERI)</td>
</tr>
<tr>
<td>34</td>
<td>New Silicon Quantum Photon Detector Structures and Performance</td>
<td>Xavier Clairardin, Kotura Inc; Dawei Zheng, presenting</td>
</tr>
<tr>
<td>35</td>
<td>Development of Amorphous Semiconductors for Radiation Detection Applications</td>
<td>Bradley R. Johnson, Pacific Northwest National Laboratory (PNNL)</td>
</tr>
<tr>
<td>36</td>
<td>Effects of the Extended Defects in CZT using a Synchrotron X-ray Beam</td>
<td>Giuseppe Camarda, Brookhaven National Laboratory (BNL)</td>
</tr>
</tbody>
</table>

**Gas, Liquid, and Cryogenic Detectors**

**Posters 37-49**

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors/Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>Cryogenics for the LUX Detector</td>
<td>Alexander Bolozdynya, Case Western Reserve University (CWRU)</td>
</tr>
<tr>
<td>38</td>
<td>Next Generation TRD for the CREAM: Construction and the TRD Prototype Beam Test Results</td>
<td>Alexander Malinin, Inst. for Phys. Sci. and Tech. (IPST), University of Maryland (UMD) (M.H. Lee, presenting)</td>
</tr>
<tr>
<td>39</td>
<td>Comparison of the Characteristics of He-3 and He-4 Proportional Chambers</td>
<td>Dong Hoon Lee, Department of Nuclear Engineering, Hanyang University</td>
</tr>
<tr>
<td>40</td>
<td>Withdrawn</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Electrostatic Detection of Radioactive Materials</td>
<td>Jeffrey W. Griffin, Pacific Northwest National Laboratory (PNNL)</td>
</tr>
<tr>
<td>42</td>
<td>High Pressure Operation of the Photon-Assisted Cascaded Electron Multiplier</td>
<td>Joao Veloso, Physics Department, University of Aveiro, Portugal</td>
</tr>
<tr>
<td>43</td>
<td>Frequency-Domain Multiplexed Superconducting Gamma-Ray Spectrometer</td>
<td>Jonathan Dreyer, Lawrence Livermore National Laboratory (LLNL)</td>
</tr>
<tr>
<td>44</td>
<td>Examination of Matsushita High Density Aerogel</td>
<td>Lucien Cremaldi, University of Mississippi</td>
</tr>
</tbody>
</table>
Evaluation Of Lithium Gadolinium Borate Capture-Gated Spectrometer Neutron Efficiencies, Nabil Menaa, Canberra (An AREVA Company)

Gas Mixture Studies for Streamer Operation of RPCs, Paoloni Alessandro, INFN - LNF (Laboratori Nazionali di Frascati)

Development of the DT-GEM: a Gas Electron Multiplier Detector for Neutron Diagnostics in Controlled Thermonuclear Fusion, Rosaria Villari, ENEA Fusion Division C.R. Frascati

Design of a New Microdosimetry Detector Based On Thick Gas Electron Multiplier, Soo Hyun Byun, McMaster University

Cryogenic Rare Earth Manganite Bolometers for Total Energy Measurements of the Linac Coherent Light Source Free Electron Laser, Stephan Friedrich, Lawrence Livermore National Laboratory; Owen B. Drury, presenting

Electronics and Systems

On-Chip Fast Data Sparsification for a Monolithic 4096-Pixel Device, Alessandro Gabrielli, INFN Bologna

The Data Readout System of Nuclear Compton Telescope (NCT), Chih-hsun Lin, National Space Organization, Taiwan


An All-Digital Coincidence Detection System for a Large RPC-PET Camera, Custodio F. M. Loureiro, Department of Physics - University of Coimbra; Filomena M. C. Clemêncio, presenting

High Count Rate Neutron Spectrometry with Liquid Scintillation Detectors, Daniele Marocco, ENEA C.R. Frascati

A Low Energy Neutron Detector Array at NSCL, Georgios Perdikakis, NSCL, Michigan State University

A Novel CMOS Monolithic Active Pixel Sensor with Analog Signal Processing and 100% Fill Factor, Giulio Villani, Rutherford Appleton Laboratory (RAL)

Nuclear Pulse Height Measurement Using Vernier TDC, H.P. Chou, National Tsing Hua University; P. H. Hsueh, presenting

The Role of Offset and Gain Corrections in Digital Radiography Detectors over the Working Lifetime, Ho Kyung Kim, Pusan National University

Development of Multifunctional Pulse Processing Device in Nuclear Spectroscopy, HongJoo Kim, Kyungpook National Univ.

A Multi-Frame, Megahertz CCD Imager, Jacob A. Mendez, Los Alamos National Laboratory (LANL)

Front-end Electronics and Preamplifiers for Compact Arrays of Germanium Gamma-ray Spectrometers, John L. Orrell, Pacific Northwest National Laboratory (PNNL)

Research and Development of the Humanitarian Landmine Detection System by a Compact Fusion Neutron Source, Kai Masuda, Institute of Advanced Energy, Kyoto University

Low Energy Measurements using the CsI(Tl) Crystal Coupled to photodiodes in Coincidence-Sum Circuitry, Margarida Mizue Hamada, Instituto de Pesquisas Energeticas e Nucleares (IPEN/CNEN); Carlos Henrique de Mesquita, presenting (IPEN/CNEN)
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>High Spatial and Temporal Resolution Neutron Imaging with Microchannel Plate Detectors</td>
<td>Oswald Siegmund, University of California, Berkeley</td>
</tr>
<tr>
<td>67</td>
<td>A Novel Independent Channel, Smart Triggering Readout Electronics for Single Photon Imaging</td>
<td>Paolo Musico, INFN - Genova</td>
</tr>
<tr>
<td>68</td>
<td>Optimal Digital Pulse Processing for Radiation Detection Systems</td>
<td>Paul A. B. Scoullar, Southern Innovation, Melbourne, Australia</td>
</tr>
<tr>
<td>69</td>
<td>Prototype Large-Angle Photon Veto Detectors for the NA62 Experiment at CERN</td>
<td>Riccardo Fantechi, INFN - Sezione di Pisa</td>
</tr>
<tr>
<td>70</td>
<td>Characterizing and Correcting the Cross-Talk Effects on Depth Measurements in the NCT</td>
<td>Zong-Kai Liu, National Central University, Jhongli, Taiwan</td>
</tr>
<tr>
<td>71</td>
<td>Novel Approaches to Radiation Detection and Readout by Exploiting the Latchup Effect</td>
<td>Villani Enrico Giulio, STFC Rutherford Appleton Laboratory</td>
</tr>
<tr>
<td>72</td>
<td>Development of Embedded DAQ System for Beam Monitoring</td>
<td>YongSeok Hwang, Kyungpook National Univ.</td>
</tr>
</tbody>
</table>

**National and Homeland Security Applications**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>Energy and Spatial Resolution Study of Thick Sodium Iodide Gamma Cameras for Standoff</td>
<td>Adrian Ivan, GE Research</td>
</tr>
<tr>
<td>77</td>
<td>Measurement of Fast Neutron/Gamma-Ray Cross-Correlation Functions with a Pu-Be Source</td>
<td>Andreas Enqvist, Chalmers University of Technology</td>
</tr>
<tr>
<td>78</td>
<td>Calculation of NRF Scattering Rate for Security Inspection</td>
<td>B.G. Park, Seoul National University; H.D. Choi, presenting (Seoul National University),</td>
</tr>
<tr>
<td>79</td>
<td>Withdrawn</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Passive Scanning of Occupied Passenger Vehicles</td>
<td>Chris Morris, Los Alamos National Laboratory (LANL)</td>
</tr>
<tr>
<td>81</td>
<td>Development of a Neutron Spectrometer using Spontaneous Fission Associated Particle (AP)</td>
<td>Istvan Dioszegi, Brookhaven National Laboratory (BNL)</td>
</tr>
<tr>
<td>82</td>
<td>Cs2LiYCl6:Ce Scintillator for Nuclear Monitoring Applications</td>
<td>Jarek Glodo, RMD</td>
</tr>
<tr>
<td>83</td>
<td>Compton Imaging for Safety and Security</td>
<td>Laurel Sinclair, Geological Survey of Canada, Natural Resources Canada</td>
</tr>
<tr>
<td>84</td>
<td>Toward Practical Monitoring of Commercial Power Reactors with Antineutrinos</td>
<td>Lorraine Sadler, Sandia National Laboratories</td>
</tr>
<tr>
<td>85</td>
<td>Withdrawn</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>Neutron Background Measurements at Fission Energies</td>
<td>Nicholas Mascarenhas, Sandia National Laboratories, Livermore (SNL-L)</td>
</tr>
<tr>
<td>87</td>
<td>Ship-Effect Neutron Impacts on Screening at Borders</td>
<td>Richard Kouzes, Pacific Northwest National Laboratory (PNNL)</td>
</tr>
<tr>
<td>88</td>
<td>Identification of Neutron Sources by Spectral Analysis of Pulse-Height Distributions</td>
<td>Senada Avdic, University of Tuzla; Sara A. Pozzi, presenting, (University of Michigan)</td>
</tr>
<tr>
<td>89</td>
<td>Determination of Source Shielding Using 3-D CZT Imaging Detectors</td>
<td>Weiyi Wang, University of Michigan</td>
</tr>
<tr>
<td>90</td>
<td>Improvement of SNM Detection Performance by Fusion of Data from Multiple Inspection Systems</td>
<td>Willem G. J. Langeveld, Rapiscan Systems, Inc.; Timothy J. Shaw, presenting</td>
</tr>
</tbody>
</table>

93  Withdrawn


95  Time-interval Probability Analysis for Radiation Monitoring, Peng Luo, Clemson University

96  Application of a Self-Multiplication Correction Method to a Neutron Coincidence Counter and Its Calibration for Spent Fuel, Tae-Hoo Lee, Korea Atomic Energy Research Institute

97  Evaluation of Commercial Spectral Personal Radiation Detectors (SPRDs), R. Arlt, International Atomic Energy Agency (IAEA)

98  Ottawa Valley Xe-133 Plume Modelling and Detection, Ed Korpach, Health Canada, Radiation Protection Bureau

Radiation Sources
Posters 100-107

100  Production of an Associated Particle Neutron Generator with ZnO:Ga Alpha-Detector, Steven Z. Kane, Purdue University; David S. Koltick, presenting

101  Development of a RF-driven Neutron Generator for Associated Particle Imaging, Ying Wu, Lawrence Berkeley National Laboratory (LBNL)

102  Compact Portable Microwave-driven Neutron Generator, Qing Ji, Lawrence Berkeley National Laboratory (LBNL)

103  Measurement of the Neutron Yield of DD and DT Neutron Generators, David Chichester, Idaho National Laboratory (INL)

104  Ultra-compact Field Desorption Neutron Source, Ying Wu, Lawrence Berkeley National Laboratory (LBNL)

105  Development of a D-D Neutron Generator Using a Titanium Drive-in Target, I.J. Kim, Seoul National University; H.D. Choi, presenting

106  A New Method of Tunable Gamma-ray with a Fixed Energy Electron Beam, Hideaki Ohgaki, Institute of Advanced Energy, Kyoto University

107  A 12 MeV Gamma Source for Active Interrogation, Bernhard Ludewigt, Lawrence Berkeley National Laboratory (LBNL)

Algorithms and Modeling
Posters 111-133

111  Numerical Simulations of Pillar Structured Solid State Thermal Neutron Detector, Adam M. Conway, Lawrence Livermore National Laboratory (LLNL)

112  Application of GEANT4 to the Simulation of Microcalorimeter Detectors, Andrew Hoover, Los Alamos National Laboratory (LANL)

113  Increasing Detection Sensitivity within Compton Imaging Systems using Model-Based Signal Decomposition Methods, Daniel H. Chivers, University of California, Berkeley

114  RadSrc: Calculating Gamma-ray Signatures from Aged Mixtures of Heavy Nuclides, Douglas Wright, Lawrence Livermore National Laboratory (LLNL)

115  Positive SNM Gamma Detection Achieved through Synthetic Enhancement of Sodium Iodide Detectors, G. E. Sjoden, University of Florida NRE/FINDS
A Novel Approach to assess the Spatial Resolution of Position Sensitive Detectors equipping 2D Neutron Tomographic Systems, Gevaldo Lisboa de Almeida, Instituto de Engenharia Nuclear - CNEN / Brazil (Ricardo Tadeu Lopes, presenting)

Computer-Aided Detection of Solitary Pulmonary Nodules on MDCT Images with One-Dimensional Morphologic Matching Algorithm, Hosang Jeon, Korea Advanced Institute of Science and Technology

Validation of GEANT4 Electromagnetic Physics Models for the Evaluation of Proton Computerized Tomography, Hugo Schelin, Federal University of Technology - Parana

Theoretical Study of Proton-Nucleus Interactions via Monte Carlo Multicollisional Intranuclear Cascade Model Plus Evaporation/Fragmentation Processes in 28Si, Joel Mesa Hormaza, Instituto de Biociencias de Botucatu (IBB-UNESP), Brazil

Extended Radiation Source Imaging with the Prototype Compton Imager, John P. Sullivan, Los Alamos National Laboratory (LANL)

Hyperspectral Imaging with Wavelet Transform for Colon Tissue Biopsy Samples, Khalid Masood, University of Warwick, UK

GEANT4 Simulation of a Cosmic Ray Muon Tomography System with Micro-Pattern Gas Detectors for the Detection of High Z Materials, Kondo Gnanvo, Florida Institute of Technology

The Atomic Simulation of Thermal Diffusion and Coulomb Drift in Semiconductor Detectors, Manhee Jeong, University of Michigan

RADMAP, An Imaging System for Gamma-ray Mapping and Density Profiling, Mitchell Woodring, Pacific Northwest National Laboratory (PNNL)

Robust Optimization Techniques for Respiratory Motion Registration, Rangika Abeygunasekera, University of Surrey, Guildford UK

On the Benefits of Partitioning Detector Elements in Large-Area NaI(Tl)-Based Detection Systems, Scott D. Kiff, Pacific Northwest National Laboratory (PNNL)

Compton Imaging Using 3-Dimensional List-Mode Maximum Likelihood Expectation Maximization (3DMLEM), Shawn Tornega, Los Alamos National Laboratory (LANL)

Contextually Aware Nuclear Evaluation System, Simon Labov, Lawrence Livermore National Laboratory (LLNL)

Few-View Projection Reconstruction with the Iterative Reconstruction-Reprojection Algorithm and TV Constraint, Xinhui Duan, Tsinghua University

Design of a Hybrid Gamma-Camera with LaBr3, Yuxin Feng, University of Florida

Fast X-ray Phase-Contrast Imaging using High Resolution Detector, Zhentian Wang, Department of Engineering Physics, Tsinghua University

Digital Image Restoration Based On Simultaneous Pixels Detection Probabilities, Varlen Grabski, Instituto de Fisica Universidad Nacional Autonoma de Mexico
Photodetectors
Posters 136-147

136 Development of Picosecond-Resolution Large-Area Time-of-Flight Systems, Camden Ertley, University of Chicago
137 A Detection System Based on Nuclear Resonance Fluorescence Technique, Haori Yang, University of Michigan
138 Design and Simulation Result of a Substrate Reverse Type Avalanche Photodiode, HongJoo Kim, Kyungpook National University; M. H. Moon, presenting
139 Silicon Photomultipliers for PET/MRI Application, Joseph Stevick, Wolfson Brain Imaging Centre, University of Cambridge
140 Evaluation of Silicon Detectors with Built In JFET for Biomedical Applications, Mitra Safavi-Naeini, University of Wollongong
141 A Si-APD Timing Detector Sensitized by Secondary Radiation, for Nuclear Resonant Scattering using Synchrotron X-Rays, Shunji Kishimoto, Photon Factory, High Energy Accelerator Research Organization
142 High-Resolution Monolithic CMOS Sensor Systems for Charged-Particle Imaging, Stuart Kleinfelder, University of California, Irvine
143 Modeling and Analysis of Charged-Particle CMOS Image Sensor Arrays, Stuart Kleinfelder, University of California, Irvine
144 Low-Noise CMOS Sensors for Charged-Particle Imaging using Per-Pixel Correlated Double Sampling, Stuart Kleinfelder, University of California, Irvine
145 A High-Speed, High Dynamic-Range, Linear Optical Sensor Array, Stuart Kleinfelder, University of California, Irvine (Moved to oral session Wednesday PM I: Bechtel-4)
146 New Approach to Solid State Photomultipliers, D. Shushakov, Amplification Technologies, Inc, USA
147 High Quantum Efficiency PMT for Field Homeland Security Instruments, Maciej Kapusta, Photonis France SAS

Scintillators
Posters 150-181

150 Electronic Structure Studies and Predictions for new Ce-doped Gamma Detector Materials, Andrew Canning, Lawrence Berkeley National Laboratory
151 First Principles Calculations for Ce-doped Rare-Earth Oxyhalides REX (RE = Y,La, X = F, Cl, Br, I) for Gamma Detector Materials, Anurag Chaudhry, Lawrence Berkeley National Laboratory (LBNL) and UC Davis,
153 Properties of vacuum deposited CsI(Tl) and ZnSe(Se) scintillator layers, A. Fedorov, Institute for Scintillating Materials, NAS of Ukraine; A. Gektin, presenting
154 Comparative Study on the Crystallization Behavior and Luminescence Properties Between LSO and LPS Crystals, Guohao Ren, Shanghai Institute of Ceramics, Chinese Academy of Sciences
155 An Investigation of the Effects of Calcium Codoping in YSO:Ce, Harold Rothfuss, Scintillation Material Research Center, University of Tennessee
156 Trends in the Electronic Structures of Halide Scintillators, Hiroyuki Takenaka, Oak Ridge National Laboratory


159 Development and Characterization of Two-dimensional Scintillating Fiber-optic Dosimeter for High Energy Electron Beam Therapy, Kyoung Won Jang, Konkuk Univ., Korea

160 CeCl3(CH3OH)4 - Cerium Chloride-Methanol Adduct Single Crystals: A New Metal-Organic Scintillator Material, L. A. Boatner, ORNL Center for Radiation Detection Materials and Systems

161 Cherenkov and Scintillation Properties of Cubic Zirconium, Mark Christl, NASA Marshall Space Flight Center (MSFC)

162 Characterization of Large Frustum CsI(Tl) Crystals for the R3B Calorimeter, Martin Gascon, University of Santiago de Compostela

163 The Effect of Calcium Codoping on Praseodymium Doped LSO, Merry Spurrier, University of Tennessee; Kan Yang, presenting

164 Characterization of Scintillation Crystal BaCl2 at Low Temperature, Minjeong Kim, Kyungpook National University

165 Development of Radiation Detectors Based on II-VI Compounds, N. Starzhinskiy, Institute for Scintillation Materials, Ukraine (ISM)

166 Problems of Manufacturing Nanocrystalline Yttrium Silicate Materials, Nadaraia Lili, Technical University of Georgia

167 On Radiation-induced Processes in GSO:Ce Crystals, N. Starzhinskiy, Institute for Scintillation Materials (ISM), Ukraine

168 Peculiarities of Cascade Photon Emission and Energy Storage in M1-xPrxF2+x (M=Ca, Sr, Ba) Crystals, Natali Shiran, Institute for Scintillation Materials (ISM)

169 Cerium and Yttrium Distributions in LSO crystals and their Influence to Optical and Scintillation Properties, Rihua Mao, California Institute of Technology

170 Cerium Activated Scintillation in Yttrium Halides: First Principle Theory and Prediction, Rostyslav Boutchko, Lawrence Berkeley National Laboratory (LBNL)

171 Crystal Growth and Scintillation Properties of Rb2CeBr5, Sunghwan Kim, Daegu Health College (Korea)

172 Characterization of Cerium Fluoride Nanocomposite Scintillators for Neutron Capture Measurements, Sy Stange, Los Alamos National Laboratory

173 Luminescence of LuCl$_3$:Pr$^{3+}$ under interconfigurational ($4f^2 \rightarrow 4f^15d^1$ and band gap excitation, Uwe Happek, The University of Georgia


175 Fast, Low Afterglow Liquid and High Optical Index Scintillators for Fast-Neutron Spectroscopy and Imaging Applications, Volker Dangendorf, Physikalisch-Technische Bundesanstalt (Germany)

176 Scintillation Properties of Large Area Composite Stilbene Crystal for Neutron Detection, Yun Ho Cho, Hanyang University

177 Large Volume ZnWO4 Crystal Scintillator with Excellent Energy Resolution and Low Background, L.L. Nagornaya, Institute for Scintillation Materials, Ukraine (ISM); B.V. Grinyov, presenting

178 Fabrication of a Coherent Fiber-Optic Bundle Sensor Using Organic Scintillating Fibers for High Dose Rate Brachytherapy, Sang Hun Shin, Konkuk University, Korea
The Growth and Scintillation Characteristics of CsI:CO3 Single Crystals, HongJoo Kim, Kyungpook National University; ShinJung Ha, presenting

Temperature Dependency of a Semi-insulating GaAs Radiation Detector for Alpha-Ray, S. M. Kang, Korea Atomic Energy Research Institute (KAERI)

Performance Characteristics for Thick Scintillator Flat Panel Detectors, McDevitt, Daniel B., GE Global Research

Research, Medical, Environmental And Industrial Applications

Posters 185-218

Improved Radioxenon Gamma Spectrometry Counting System and its Efficiency Calibration: Monte Carlo Simulation and Experimental Results at Enriched Xenon Counting Environment, Weihua Zhang, Radiation Protection Bureau, Health Canada

Imaging System for XRF Microtomography at LNLS-Brazil, Gabriela Ribeiro Pereira, Federal University of Rio De Janeiro (UFRJ) (Ricardo Tadeu Lopes, presenting)

Fast Pulsed Neutron and Soft X-Ray Source For Detector Calibration, Mahadevan Krishnan, Almeda Applied Sciences Corporation (AASC); Brian Bures, presenting

Small-Angle X-Ray Scattering / USAXS/ Diffraction from Biological Samples, Donepudi Venkateswara Rao, Sir.C.R.R. Autonomous College

Novel Three-Dimensional Gamma-Ray Emission Imaging Built On Compton Scattered Radiation, T.T. Truong, University of Cergy-Pontoise

Differential Phase-Contrast Imaging Experimental System Based On Moire Deflectometry with Incoherent X-Rays, Zhi-Feng Huang, Tsinghua University

Improved Characterization of Environmental Samples, Kari Perajarvi, STUK-Radiation and Nuclear Safety Authority, Helsinki, Finland

The Application of Forward Scattering in Material Identification, Huaqiang Zhong, Nuctech Company Limited

Fast Neutron Dose Evaluation in BNCT with Fricke Gel Detectors, Grazia Gambarini, Department of Physics of the University and INFN, Milan, Italy

Gamma Cube: An Ultrahigh Resolution and Ultrahigh Sensitivity SPECT System for Tracking Radiolabeled Immune Cells in Mouse Brain, Geng Fu, University of Illinois

Radiometric Meteorology, Mark B. Greenfield, International Christian University

Special Light-Insensitive Development-Free Radiographic Film for Beam-profile Imaging, Fred Becchetti, University of Michigan; A. Villano, presenting

An Extended Solenoid-based Time-of-flight Beam Line for Low-energy Radioactive-Beam Research, Fred Becchetti, University of Michigan; Hao Jiang, presenting

Luminosity Measurement Calorimeters and Tracking Detectors for Crabbed Waist Collisions at DAFNE, Paolo Valente, INFN Roma; Nicolas Arnaud, presenting

Non-Destructive Imaging Materials Investigation by Microfocus 3D X-Ray Computed Tomography, Ricardo Tadeu Lopes, Federal University of Rio de Janeiro (UFRJ)

A Study of the Performance of the ALICE Zero Degree Calorimeters, Corrado Ciccolo', INFN Sezione di Cagliari

The ALICE Dimuon Forward Spectrometer, Elisabetta Siddi, INFN Sezione di Cagliari

A Silicon Beam Tracker, Ji Hye Han, Univ. of Maryland (IPST) (M.H. Lee, presenting)


Withdrawn
A Preliminary Study on Dual-Energy Computed Tomography for Small Animals, Sungho Chang, KAIST

Study of the Radiation Hardness of VCSEL and PIN Arrays, K.K. Gan, The Ohio State University

Investigation of the GSO Based Detection System for Continuous Blood Sampling - Simulation Study, JongGuk Kim, Korea Institute of Radiological And Medical Sciences

Registration Method for the Detection of Tumor in the Lungs and Liver Using a Multimodality Small Animal Imaging, Sang-Keun Woo, Korea Institute of Radiological and Medical Sciences

Multivariate Data Analysis for Drug Identification using Energy-Dispersive X-ray Diffraction, Emily Cook, University College London

Time-Resolved Extended X-Ray Absorption Fine Structure Using a Pixel Array Detector, Antonino Miceli, Argonne National Laboratory

Advances in Optical CT Reconstruction Imaging for FXG Dosimetry, Adelaide de Almeida, Universidade de Sao Paulo (USP), Brasil

Paterson Parker Distribution Dose Method Evaluation through the Fricke Xylenol Gel Chemical Dosimeter, Adelaide de Almeida, Universidade de Sao Paulo (USP), Brasil

137Cs Absorbed Dose Distribution through Fricke Xylenol Gel Dosimeter Measurements, Adelaide de Almeida, Universidade de Sao Paulo (USP), Brasil
Poster Session Plan, Chevron Auditorium of International House

Poster Session I (odd numbers) 2-3:15; break 3:15-3:45; Poster Session II (even numbers) 3:45-5

Scintillators, 150-181

Radiation Sources 100-107

Photodetectors, 136-147

Algorithms and Modelling, 111-133

Electronics and Systems, 51-72

Gas, Liquid, and Alternate Detectors, 37-49

Semiconductor Detectors, 1-36
National and Homeland Security Applications, 76-98

Research, Medical, Environmental and Industrial Applications, 185-218

Posters 184-199 are in the Chevron Auditorium

Poster Session Plan, Great Hall of International House
Poster Session I (odd numbers) 2-3:15; break 3:15-3:45; Poster Session II (even numbers) 3:45-5