



14th International Conference on Scintillating Materials and their Applications

SCIENTIFIC PROGRAM

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	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:00	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION
09:00	OPENING CEREMONY	CRYSTAL GROWTH	NANO-MATERIALS	SCINTILLATION MECHANISMS	CRYSTAL GROWTH
10:00	COFFEE	POSTER SESSION #1	POSTER SESSION #2	POSTER SESSION #3	COFFEE
11:00	OPENING SESSION	NOVEL MATERIALS	META-MATERIALS	CHARACTERIZATION	APPLICATIONS
12:00	WELCOME DRINK				CONFERENCE CLOSING
13:00					
14:00					
15:00	APPLICATIONS	SCINTILLATION MECHANISMS	EXCURSION	INDUSTRIAL EVENT - COST ACTION TD1401 FAST	
16:00	COFFEE	COFFEE			
17:00	APPLICATIONS	CHARACTERIZATION		COFFEE	
18:00				ROUND TABLE	
19:00					
20:00	BUFFET MONTAGNARD				
21:00	HISTORY OF CHAMONIX	IAC MEETING [RESTRICTED]			CONFERENCE BANQUET
22:00					
23:00					

Registration	Sunday 16:30-20:00
Registration	Monday 07:45-09:00
Opening Ceremony	Monday 09:00-10:00
Session Chair: Etiennette Auffray, Christian Pédrini	
09:00 Welcome Address	
<u>E. Auffray</u> ¹	
¹ <i>CERN (CH)</i>	
09:30 25 years of SCINT conferences	
<u>W. Moses</u> ¹	
¹ <i>Lawrence Berkeley National Laboratory (US)</i>	
Coffee	Monday 10:00-10:30
Opening Session	Monday 10:30-12:00
Session Chair: Etiennette Auffray, Christian Pédrini	
10:30 Advances in Scintillators for Nuclear Security	
<u>C. Melcher</u> ¹ , M. Zhuravleva ¹ , L. Stand ¹ , M. Koschan ¹ , M. Loyd ¹ , A. Lindsey ¹	
¹ <i>University of Tennessee (US)</i>	
11:00 Studies of precision time-tagging of charged tracks with scintillating crystals for the phase-II upgrade of CMS	
<u>T. Tabarelli de Fatis</u> ¹	
¹ <i>Universita & INFN, Milano-Bicocca (IT)</i>	
11:30 The 10ps Time-of-Flight PET challenge: Myth or reality?	
<u>P. Lecoq</u> ¹	
¹ <i>CERN (CH)</i>	
Welcome Drink	Monday 12:00-13:00

Applications #1	Monday 14:30-16:30
Session Chair: Paul Lecoq	
14:30 Fiber-based Calorimeters for High Energy Physics	
<u>K. Pauwels</u> ¹ on behalf of the INTELUM collaboration	
¹ <i>Universita & INFN, Milano-Bicocca (IT)</i>	
15:00 Applications of Very Fast Inorganic Crystal Scintillators for Future HEP Experiments	
<u>R.Y. Zhu</u> ¹	
¹ <i>California Institute of Technology (US)</i>	
15:15 Composite scintillators for high energy physics	
A. Boyarintsev ¹ , A. Bobovnikov ¹ , <u>A. Gektin</u> ¹ , B. Grynyov ¹ , I. Gerasymov ¹ , S. Kovalchuk ¹ , T. Nepokupnaya ¹ , Y. Onufriyev ¹ , O. Sidletskiy ¹	
¹ <i>Institute for Scintillation Materials, NAS (UA)</i>	
15:30 Design and status of the Mu2e crystal calorimeter	
<u>E. Diociaiuti</u> ¹ on behalf of the Mu2e collaboration	
¹ <i>LNF - INFN (IT)</i>	
15:45 Development of a Crystal Calorimeter for the Electron Ion Collider	
<u>C. Woody</u> ¹ , A. Kiselev ¹ , M. Purschke ¹ , S. Stoll ¹ , T. Horn ² , C. Munoz Camacho ³ , R. Zhu ⁴	
¹ <i>Brookhaven National Laboratory (US)</i> , ² <i>Catholic University of America (US)</i> , ³ <i>Institute de Physique Nucleaire, Orsay (FR)</i> , ⁴ <i>California Institute of Technology (US)</i>	
16:00 High-Quality Lead Tungstate Crystals for PANDA	
K.T. Brinkmann ¹ , H.G. Zaunick ² , J. Houzvicka ³ , S. Ochesanu ³ , R. Novotny ² , V. Dormenev ² , M. Korjik ^{4,5} , D. Petrydes ³	
¹ <i>Bonn University (DE)</i> , ² <i>Justus Liebig University Giessen (DE)</i> , ³ <i>CRYTUR Ltd. (CZ)</i> , ⁴ <i>Institute for Nuclear Problems, BSU (BY)</i> , ⁵ <i>NRC Kurchatov Institute - IREA, Moscow (RU)</i>	
16:15 Predicting the performance of the CMS precision PbWO4 electromagnetic calorimeter in the HL-LHC era from test beam results on irradiated crystals	
<u>A. Zghiche</u> ¹ on behalf of the CMS collaboration	
¹ <i>LAPP-CNRS (FR)</i>	
Coffee	Monday 16:30-17:00

Session Chair: Ioan Dafinei

17:00 Search for new Molybdenum based crystal scintillators for neutrino-less double beta decay search

H. Kim¹, I. Pandey¹, A. Khan¹, J. Son², M. Lee², Y. Kim², Y. Kim², J. Lee¹

¹Kyungpook National University (KR), ²Institute of Basic Science (KR)

17:15 Optical and luminescent properties of ⁴⁰Ca¹⁰⁰MoO₄ single crystals

A. Kozlova¹, E. Zabelina¹, N. Kozlova¹, O. Buzanov², D. Spassky^{1,3,4}, A. Chernykh¹

¹National University of Science and Technology MISiS (RU), ²Fomos-Materials Ltd. (RU), ³Skobeltsyn Institute of Nuclear Physics (RU), ⁴Lomonosov Moscow State University, Materials Science Department (RU)

17:30 Scintillation Properties of (Zn,Mg)WO₄ for Dark Matter Search

S. Kurosawa¹, H. Sekiya², T. Horiai¹, A. Yamaji¹, S. Kodama¹, R. Murakami³, Y. Shoji¹, Y. Ohashi⁴, Y. Yokota⁴, K. Kamada^{1,3,5}, A. Yoshikawa¹, A. Ohnishi⁶, M. Kitaura⁶

¹Tohoku University (JP), ²University of Tokyo (JP), ³C&A Corp. (JP), ⁴Institute for Materials Research, Tohoku University (JP), ⁵NICHe, Tohoku University (JP), ⁶Yamagata University, Department of Physics (JP)

17:45 Calibration and Performance of a 3D Imaging Calorimeter of DAMPE for Cosmic Ray Physics on Orbit

L. Wu¹, Y. Zhang¹

¹University of Science and Technology of China (CN)

18:00 Low-temperature studies of the scintillation of pure cesium iodide for cryogenic scintillator detectors

M. Clark¹, P. Di Stefano¹

¹Queen's University (CA)

18:15 Scintillation properties of n-type GaAs at cryogenic temperatures

S. Derenzo¹, G. Bizarri¹, E. Bourret¹

¹Lawrence Berkeley National Laboratory (US)

18:30 The liquid scintillator for JUNO experiment

S. Xie¹ on behalf of the JUNO collaboration

¹Institute of High Energy Physics (CN)

Buffet Montagnard Monday 19:30-20:30

History of Chamonix - by Claire Burnet Monday 20:30-21:30

Session Chair: Chuck Melcher

08:30 Crystal Growth and Engineering of Inorganic Scintillators

E. Bourret¹, G. Bizarri¹, M. Del Ben¹, A. Canning¹, T. Shalapska¹, D. Perrodin¹, R. dos Reis¹, J. Derby², A. Tremsin³, S. Vogel⁴, R. Williams⁵, S. Kerisit⁶

¹Lawrence Berkeley National Laboratory (US), ²University of Minnesota (US), ³Space Sciences Laboratory, University of California (US), ⁴Los Alamos National Laboratory (US), ⁵Wake Forest University (US), ⁶Pacific Northwest National Laboratory (US)

09:00 Growth and characterization of eutectic scintillator taking the advantage of composite material

A. Yoshikawa^{1,2,3}, K. Kamada^{1,2,3}, S. Kurosawa², Y. Yokota², A. Yamaji¹, V. Chani¹, Y. Ohashi²

¹Institute for Materials Research, Tohoku University (JP), ²NICHe, Tohoku University (JP), ³C&A Corp. (JP)

09:15 Growth and characterization of SrI₂:Eu crystals grown by the Czochralski method

E. Galenin¹, O. Sidletskiy¹, C. Dujardin², A. Gektin¹

¹Institute for Scintillation Materials, NAS (UA), ²Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)

09:30 Garnet scintillators, obtained by 3D printing

G. Dosovitskiy¹, P. Karpyuk¹, P. Evdokimov², D. Kuznetsova¹, V. Mechinsky³, A. Borisevich³, A. Fedorov³, V. Putlayev², A. Dosovitskiy⁴, M. Korjik^{1,3}

¹NRC Kurchatov Institute - IREA, Moscow (RU), ²Lomonosov Moscow State University, Materials Science Department (RU), ³Institute for Nuclear Problems, BSU (BY), ⁴NeoChem JSC (RU)

09:45 In-situ diagnostics of phase separation and segregation during growth of Cs₂LiLaBr₆:Ce scintillator crystals by energy-resolved neutron imaging

A. Tremsin¹, D. Perrodin², A. Losko³, S. Vogel³, M. Bourke³, J. Peterson⁴, C. Zhang⁴, J. Derby⁴, T. Shinohara⁵, G. Bizarri², E. Bourret²

¹Space Sciences Laboratory, University of California (US), ²Lawrence Berkeley National Laboratory (US), ³Los Alamos National Laboratory (US), ⁴University of Minnesota (US), ⁵Japan Atomic Energy Agency (JP)

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

[Posters of this session are listed on page 21]

Session Chair: Aleksander Gektin

11:00 Emerging Concepts in Organic Radiation Detection Materials

P. Feng¹, J. Carlson¹

¹Sandia National Laboratories (US)

11:30 Novel all-solid-state hybrid film-crystal scintillators based on the epitaxial structures of garnet compounds

Y. Zorenko¹, V. Gorbenko¹, T. Zorenko¹, S. Witkiewicz¹, O. Sidletskiy², I. Gerasymov², P. Arhipov², A. Fedorov³, J. Mares⁴, M. Nikl⁴

¹Institute of Physics, Kazimierz Wielki University (PL), ²Institute for Scintillation Materials, NAS (UA), ³SSI Institute for Single Crystals, NAS of Ukraine (UA), ⁴Institute of Physics of the Czech Academy of Sciences (CZ)

11:45 Discovery, crystal growth and scintillation properties of TI-based scintillators

H. Kim¹, G. Rooh², A. Khan¹, S. Kim³

¹Kyungpook National University (KR), ²Abdul Wali Khan University (PK), ³Cheongju University (KR)

12:00 Cesium Hafnium Chloride, a Non-Hygroscopic, High-Performance Scintillator

S. Lam¹, A. Burger², S. Motakef¹

¹CapeSym, Inc. (US), ²Fisk University (US)

12:15 Neutron detection and High resolution imaging using large area 6Li_xNa_{1-x}I:Eu

M. Marshall¹, M. Moore¹, H. Bhandari¹, R. Riedel², S. Waterman¹, J. Crespi¹, P. Nickerson¹, S. Miller¹, V. Nagarkar¹

¹Radiation Monitoring Devices, Inc. (US), ²Oak Ridge National Laboratory, Neutron Scattering Science Division (US)

12:30 Scintillation properties of advanced LuAG:Ce optical ceramic materials

Y. Pan¹, J. Mares², C. Hu¹, C. D'Ambrosio³, H. Kou¹, J. Li¹, V. Babin², A. Beitlerova², M. Nikl², S. Liu¹, X. Feng¹, S. Omelkov⁴, A. Krasnikov⁴

¹Shanghai Institute of Ceramics, Chinese Academy of Sciences (CN),

²Institute of Physics of the Czech Academy of Sciences (CZ), ³CERN, PH-LHB Group (CH), ⁴Institute of Physics, University of Tartu (EE)

Lunch Tuesday 12:45-14:30

Scintillation Mechanisms #1 Tuesday 14:30-16:00

Session Chair: Richard Williams

14:30 The role of excitation distribution in the intrinsic resolution

A. Vasilyev¹, A. Gektin²

¹Skobel'syn Institute of Nuclear Physics, Lomonosov Moscow State University (RU), ²Institute for Scintillation Materials, NAS (UA)

14:45 On the impact of the nano-scale fluctuations of electronic structure in solid solutions on the scintillating properties

S. Gridin¹, A. Belsky², A. Gektin³, A. Vasiliev⁴

¹Wake Forest University (US), ²University Lyon1, CNRS (FR), ³Institute for Scintillation Materials, NAS (UA), ⁴Skobel'syn Institute of Nuclear Physics, Lomonosov Moscow State University,

15:00 Can self-trapped excitons deliver energy to impurities in tungstates?

V. Nagirnyi¹, D. Spassky², I. Romet¹, E. Aleksanyan³, M. Kirm¹

¹Institute of Physics, University of Tartu (EE), ²Skobel'syn Institute of Nuclear Physics, Lomonosov Moscow State University (RU), ³A. Alikhanyan National Science Laboratory (AM)

15:15 A Theoretical First-principles Investigation of the Properties of Self-Trapped Excitons and Defects in Halide Scintillators

A. Canning¹, M. Del Ben¹, E. Bourret¹, G. Bizarri¹

¹Lawrence Berkeley National Laboratory (US)

15:30 The electronic structure of Tl, Pb, and Bi based scintillators and how that relates to scintillator performance

P. Dorenbos¹, R. Awater¹

¹Delft University of Technology (NL)

15:45 Picosecond absorption spectroscopy of self-trapped holes, self-trapped excitons, and transient Ce states in LaBr₃ and LaBr₃:Ce

P. Li¹, S. Gridin¹, K. Ucer¹, R. Williams¹, K. Yang², P. Menge²

¹Wake Forest University (US), ²Saint-Gobain Crystals (US)

Coffee Tuesday 16:00-16:30

Characterization #1 Tuesday 16:30-18:15

Session Chair: Pieter Dorenbos

16:30 High Performance CLYC-PVT Composite Scintillators for Neutron/Gamma Detection

S. Lam¹, J. Fiala¹, S. Motakef¹

¹CapeSym, Inc. (US)

16:45 Scintillation properties of pure YAG crystals

N. Shiran¹, A. Gektin¹, V. Nesterkina¹, S. Vasyukov¹, O. Zelenskaya¹

¹Institute for Scintillation Materials, NAS (UA)

17:00 Comprehensive study on La-GPS scintillator

S. Kurosawa¹, T. Hori¹, R. Murakami², Y. Shoji², A. Yamaji³, S. Kodama¹, Y. Ohashi³, Y. Yokota³, K. Kamada^{1,2,4}, A. Yoshikawa^{1,2,4}, A. Ohnishi⁵, M. Kitaura⁵

¹Tohoku University (JP), ²C&A Corp. (JP), ³Institute for Materials Research, Tohoku University (JP), ⁴NICHE, Tohoku University (JP), ⁵Yamagata University, Department of Physics (JP)

17:15 Li-Be-Si-Ce scintillation glass and glass ceramics with moderate properties

M. Korjik^{1,2}, A. Fedorov^{1,2}, A. Dosovitskiy³, O. Akimova¹, E. Gordienko², G. Dosovitskiy², V. Mechinsky^{1,2}

¹Institute for Nuclear Problems, BSU (BY), ²NRC Kurchatov Institute - IREA, Moscow (RU), ³NeoChem JSC (RU)

17:30 Study of the glass and glass ceramic BaO₂(SiO₂):Ce (DSB: Ce) scintillation material for high energy physics application

V. Dormenev¹, A. Borisevich², K.T. Brinkmann¹, D. Kozlov³, M. Korjik^{2,4}, R. Novotny¹, P. Orsich², H.G. Zaunick¹

¹Justus Liebig University Giessen (DE), ²Institute for Nuclear Problems, BSU (BY), ³Research Institute for Nuclear Problems, Minsk, Belarus, ⁴NRC Kurchatov Institute - IREA, Moscow (RU)

17:45 Radiation hardness of Rare Earth doped sol-gel silica fibers for High Energy Physics Detectors

F. Cova¹, N. Chiodini², M. Fasoli², F. Moretti², K. Pauwels¹, E. Auffray³, M. Lucchini³, G. Bizarri⁴, E. Bourret⁴, S. Baccaro^{5,6}, A. Cemmi⁶, A. Vedda²

¹Universita & INFN, Milano-Bicocca (IT), ²University of Milano-Bicocca (IT), ³CERN (CH), ⁴Lawrence Berkeley National Laboratory (US), ⁵INFN Sezione di Roma (IT), ⁶ENEA (IT)

IAC Meeting [restricted]

Tuesday 19:00-23:00

[Meeting restricted to the International Advisory Committee]

Registration

Wednesday 08:00-08:30

Nanomaterials

Wednesday 08:30-10:00

Session Chair: Christophe Dujardin

08:30 Colloidal quantum dots design for scintillation applications

B. Mahler¹, J. Baronnier², J. Houel², C. Dujardin²

¹CNRS (FR), ²Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)

09:00 Radiation synthesis of highly luminescent nanoscintillators with fast decay

V. Čuba¹, L. Procházková¹, J. Barta², E. Mihokova³, M. Niki³

¹Czech Technical University in Prague (CZ), ²Acad. of Sciences of the Czech Rep. (CZ), ³Institute of Physics of the Czech Academy of Sciences (CZ)

09:15 Spectroscopic Properties of Scintillating Hafnium Dioxide Nanocrystals

I. Villa¹, A. Lauria², F. Moretti¹, M. Fasoli¹, C. Dujardin³, M. Niederberger², A. Vedda¹

¹Department of Materials Science, University of Milano-Bicocca (IT), ²Laboratory for Multifunctional Materials, ETH Zürich (CH), ³Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)

09:30 Purcell-Enhanced scintillating properties in metal:ZnO nanostructures

A. Chen¹, L. Ying², Z. Yu², R. Zhu³, Z. Wang¹

¹Los Alamos National Laboratory (US), ²University of Wisconsin-Madison (US), ³California Institute of Technology (US)

09:45 Growth and Characterization of InGaN/GaN Multiple Quantum Well Structures used for Scintillation Detectors

T. Hubáček¹, A. Hospodková¹, J. Oswald¹, J. Pangrác¹, V. Jarý², T. Parkman³, D. Pánek³, G. Ledoux³, C. Dujardin⁴, M. Niki¹

¹Institute of Physics of the Czech Academy of Sciences (CZ), ²Acad. of Sciences of the Czech Rep. (CZ), ³Czech Technical University in Prague, Faculty of Biomedical Engineering (CZ), ⁴Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)

Poster Session #2 / Coffee

Wednesday 10:00-11:00

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

[Posters of this session are listed on page 25]

Session Chair: Martin Nikl

11:00 First step towards the design of metamaterials combining dense scintillator host with nanocrystals

R. Martinez Turtos¹, S. Gundacker², J. Grim³, A. Polovitsyn⁴, I. Moreels⁴, E. Auffray¹, P. Lecoq¹

¹CERN (CH), ²Universita & INFN, Milano-Bicocca (IT), ³U.S. Naval Research Laboratory (US), ⁴Istituto Italiano di Tecnologia (IT)

11:15 Perspectives On The Future Developments of Nano Scintillators

S. Saramad¹

¹Amirkabir University of Technology (IR)

11:30 Fast timing capabilities of the hybrid GRIFFIN array

B. Olaizola Mampaso¹, A. Garnsworthy¹, C. Svensson², P. Garrett² on behalf of the GRIFFIN collaboration

¹TRIUMF (CA), ²University of Guelph (CA)

11:45 Comparing BSO and BGO with different surface finishes as cost-effective, hybrid scintillation/Cherenkov detectors for TOF-PET

S. Brunner¹, D. Schaart¹

¹Delft University of Technology (NL)

12:00 Light spread manipulation in scintillators using Laser Induced Optical Barriers

L. Bläckberg^{1,2}, G. El Fakhri¹, H. Sabet¹

¹Gordon Center for Medical Imaging & Harvard Medical School (US), ²Department of Physics and Astronomy, Uppsala University (SE)

12:15 Photonic crystals slabs applied to inorganic scintillators

M. Salomoni^{1,2}, R. Pots^{1,3}, P. Lecoq¹, E. Auffray¹, M. Paganoni², S. Gundacker², M. Pizzichemi¹, M. Marshall⁴, S. Waterman⁴, B. Singh⁴, V. Navakar⁴

¹CERN (CH), ²Universita & INFN, Milano-Bicocca (IT), ³RWTH Aachen (DE), ⁴Radiation Monitoring Devices, Inc. (US)

Session Chair: Andrey Vasiliev

08:30 Free carrier absorption for study of fast excitation transfer in scintillation crystals

G. Tamulaitis¹, S. Nargelas¹, A. Vaitkevicius¹, M. Korjik^{2,3}, M. Lucchini⁴, E. Auffray⁴

¹Vilnius University (LT), ²Institute for Nuclear Problems, BSU (BY), ³NRC Kurchatov Institute - IREA, Moscow (RU), ⁴CERN (CH)

08:45 Some trends in the yield of the hot intraband luminescence

S. Omelkov¹, V. Nagirnyi¹, M. Kirm²

¹Institute of Physics, University of Tartu (EE), ²University of Tartu (EE)

09:00 Two-photon photoconductivity and luminescence in scintillators – measurement and mapping

D. Onken¹, S. Gridin¹, K. Ucer¹, R. Williams¹

¹Wake Forest University (US)

09:15 Charge trapping processes and energy transfer in PbMoO₄ studied by electron paramagnetic resonance and thermally stimulated luminescence

M. Buryi¹, V. Laguta¹, M. Fasoli², F. Moretti², M. Trubitsyn³, M. Volnianskii³, A. Vedda², M. Nikl¹

¹Institute of Physics of the Czech Academy of Sciences (CZ), ²University of Milano-Bicocca (IT), ³Oles Honchar Dnipropetrovsk National University (UA)

09:30 Pulse shape analysis of individual gamma events - correlation to resolution and the possibility of its improvement

V. Gayshan¹, A. Gektin², S. Vasyukov², S. Gridin³, D. Onken³, R. Williams³

¹ScintiTech Inc. (US), ²Institute for Scintillation Materials, NAS (UA), ³Wake Forest University (US)

09:45 Excitation density distribution effects on fast ZnO excitonic emission

P. Martin¹, A. Belsky², A. Vasilyev³, N. Fedorov⁴, M. Dumergue⁵

¹CNRS-CELIA (FR), ²University Lyon1, CNRS (FR), ³Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University (RU), ⁴Univ. Bordeaux-CELIA (FR), ⁵ELI-ALPS, ELI-Hu (HU)

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

[Posters of this session are listed on page 29]

Session Chair: William Moses

11:00 Precise rise time measurements of inorganic scintillators using X-ray and 511 keV excitation

S. Gundacker¹, R. Martinez Turtos², E. Auffray², P. Lecoq²

¹Universita & INFN, Milano-Bicocca (IT), ²CERN (CH)

11:15 Significant improvement of GAGG based scintillation detector performance by control of the electronic excitation dynamics

M. Korjik^{1,2}, V. Alenkov³, A. Borisevich¹, K.T. Brinkmann⁴, O. Buzanov³, V. Dormenev⁴, G. Dosovitskiy⁵, A. Dosovitskiy⁶, A. Fedorov¹, D. Kozlov¹, R. Novotny⁴, G. Tamulaitis⁷, V. Vasiliev³, H.G. Zaunick⁴

¹Institute for Nuclear Problems, BSU (BY), ²NRC Kurchatov Institute - IREA, Moscow (RU), ³FOMOS Crystals (RU), ⁴Justus Liebig University Giessen (DE), ⁵Institute of Chemical Reagents and High Purity Chemical Substances (RU), ⁶NeoChem JSC (RU), ⁷Vilnius University (LT)

11:30 Timing performance of GAGG:Ce and LuAG:Ce epitaxial garnet films co-doped by divalent Mg²⁺ ions

M. Kucera¹, Z. Lucenicova¹, O. Lalinsky², M. Nikl³, C. Dujardin⁴, M. Hanus¹

¹Charles University (CZ), ²Institute of Scientific Instruments of the Czech Academy of Sciences (CZ), ³Institute of Physics of the Czech Academy of Sciences (CZ), ⁴Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)

11:45 Scintillation properties of LuAG-based scintillators: Influence of Ga-admixture, non-stoichiometry and Mg-codoping

J. Pejchal¹, V. Babin¹, A. Beitlerova¹, R. Kucerkova¹, P. Prusa², D. Pánek³, T. Parkman³, K. Kamada⁴, A. Yoshikawa⁴

¹Institute of Physics of the Czech Academy of Sciences (CZ), ²Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering (CZ), ³Czech Technical University in Prague, Faculty of Biomedical Engineering (CZ), ⁴NICHE, Tohoku University, C&A Corp. (JP)

12:00 Consequences of Ca co-doping in YAIO₃:Ce single crystals

F. Moretti^{1,2}, K. Hovhannesian³, M. Derdzian³, G. Bizarri⁴, E. Bourret⁴, A. Petrosyan³, C. Dujardin¹

¹Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR),

²Department of Materials Science, University of Milano-Bicocca (IT),

³Institute for Physical Research, National Academy of Sciences (AM),

⁴Lawrence Berkeley National Laboratory (US)

12:15 Pulse shape studies of various scintillators with waveform digitizing techniques

W. Wolszczak¹, P. Dorenbos¹

¹Delft University of Technology (NL)

Session Chair: Karl Ziemons

14:30 Scintillator materials and phenomena studied for fast timing

M. Nikl¹

¹Institute of Physics of the Czech Academy of Sciences (CZ)

15:00 From Academic Research to Scintillator Crystal Industry

B. Chai¹

¹Crystal Photonics, Inc. (US)

15:30 Industrial Scale R&D of Fast Scintillators

J. Houzvicka¹, S. Sykorova¹, M. Nikl²

¹CRYTUR Ltd. (CZ), ²Institute of Physics of the Czech Academy of Sciences (CZ)

15:45 Fomos-Materials experience to control crystal properties

O. Buzanov¹, V. Alenkov¹

¹FOMOS Crystals (RU)

16:00 C&A

K. Kamada¹

¹C&A Corp. (JP)

16:15 Scionix

P. Schotanus¹

¹Scionix (NL)

16:30 Scintacor

C. DeStefanis¹

¹*Scintacor (UK)*

16:45 Saint-Gobain

V. Ouspenski¹

¹*Saint-Gobain Recherche (FR)*

Coffee Thursday 17:00-17:30

Industrial Event: Round Table Thursday 17:30-18:30

Session Chair: Karl Ziemons // COST ACTION TD1401 [FAST]

Conference Banquet Thursday 19:30-00:00

Registration Friday 08:00-08:30

Crystal Growth #2 Friday 08:30-10:00

Session Chair: Edith Bourret

08:30 Ultra radio-pure scintillators for Rare Events Physics

I. Dafinei¹

¹*INFN Sezione di Roma (IT)*

08:45 Epitaxial Growth of Ce-doped (Pb,Gd)₃(Al,Ga)₅O₁₂ Films and Their Optical, Photoluminescence and Scintillation Properties

D. Vasil'ev¹, S. Kurosawa², D. Spassky³, S. Omelkov⁴, N. Vasil'eva¹, V. Plotnichenko⁵, A. Khakhalin⁶, V. Kochurikhin¹

¹*Prokhorov General Physics Institute, Russian Academy of Sciences (RU)*, ²*NICHe, Tohoku University (JP)*, ³*Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University (RU)*, ⁴*Institute of Physics, University of Tartu (EE)*, ⁵*Fiber Optics Research Center, Russian Academy of Sciences (RU)*, ⁶*Lomonosov Moscow State University, Physics Department (RU)*

09:00 Scintillation Properties of La₂Hf₂O₇ Transparent Ceramics by the Spark Plasm Sintering Method

S. Kurosawa¹, K. Harata¹, S. Kodama¹, S. Yamato¹, A. Yamaji², J. Pejchal³, Y. Ohashi², K. Kamada⁴, Y. Yokota², A. Yoshikawa⁴

¹*Tohoku University (JP)*, ²*Institute for Materials Research, Tohoku University (JP)*, ³*Institute of Physics of the Czech Academy of Sciences (CZ)*, ⁴*NICHE, Tohoku University, C&A Corp. (JP)*

09:15 Comparative study of rare-earth aluminate scintillation crystals fabricated under different conditions

O. Sidletskiy¹

¹*Institute for Scintillation Materials, NAS (UA)*

09:30 Shaped crystal growth of novel oxide scintillators by the edge defined film fed growth method

K. Kamada¹, T. Kotaki², M. Miyazaki², Y. Shoji³, A. Yamaji³, S. Kurosawa³, Y. Yokota⁴, Y. Ohashi⁵, A. Yoshikawa¹

¹*NICHE, Tohoku University, C&A Corp. (JP)*, ²*Namiki Precision Jewel Co., Ltd. (JP)*, ³*Tohoku University (JP)*, ⁴*NICHE, Tohoku University (JP)*, ⁵*Institute for Materials Research, Tohoku University (JP)*

09:45 Growth of Ce-doped garnets with additional monovalent impurities and related effects

A. Petrosyan¹, M. Derdzian¹, K. Hovhannesian¹, R. Sargsyan¹, A. Novikov¹, A. Eganyan¹, C. Dujardin²

¹*Institute for Physical Research, National Academy of Sciences (AM),*

²*Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)*

Coffee Friday 10:00-10:30

Applications #3 Friday 10:30-12:15

Session Chair: Christian Morel

10:30 Light Yield Enhancement of the 157-Gadolinium Oxysulfide Scintillator Screens for the High-resolution Neutron Imaging

J. Crha¹, J. Vila-Comamala², E. Lehmann³, C. David³, P. Trtik³

¹*Czech Technical University in Prague (CZ),* ²*ETH Zürich (CH),* ³*Paul Scherrer Institut (CH)*

10:45 Ultrafast Scintillator for Dynamic Compression Studies

Z. Marton¹, N. Sinclair², Y. Gupta³, B. Singh¹, V. Nagarkar¹

¹*Radiation Monitoring Devices, Inc. (US),* ²*Washington State University, The Dynamic Compression Sector (US),* ³*Washington State University (US)*

11:00 Optimization of micro columnar CsI:TI scintillators for X-ray medical imaging applications

M. Dorel¹, M. Beranger¹, A. Clouet¹

¹*TRIXELL (FR)*

11:15 Miniature inorganic scintillation detectors for on-line treatment verification during brachytherapy

G. Kertzscher¹, S. Beddar¹

¹*The University of Texas, MD Anderson Cancer Center (US)*

11:30 Real-time 3D scintillation dosimetry using organic liquid scintillators for proton therapy

S. Beddar¹

¹*The University of Texas, MD Anderson Cancer Center (US)*

11:45 Scintillating fibers devices for Particle Therapy applications

G. Battistoni¹, F. Collamati², E. De Lucia³, R. Faccini^{2,4}, V. Giacometti^{2,5}, C. Mancini Terracciano^{2,4}, M. Marafini^{2,5}, I. Mattei¹, R. Mirabelli^{2,4}, S. Muraro⁶, V. Patera^{2,4,5}, D. Pinci², A. Sarti^{3,4,5}, A. Sciubba^{2,4,5}, E. Solfaroli Camillocci⁴, M. Toppi³, G. Traini^{2,4}, S. Valle^{1,7}, C. Voena²

¹*INFN Sezione di Milano (IT),* ²*INFN Sezione di Roma (IT),* ³*INFN Sezione di Frascati (IT),* ⁴*Sapienza Università di Roma (IT),* ⁵*Centro Fermi, Roma (IT),* ⁶*INFN Sezione di Pisa (IT),* ⁷*Università degli Studi di Milano (IT)*

12:00 Development of a high resolution module for PET scanners with DOI capabilities

A. Polese^{1,2}, G. Stringhini^{1,2}, M. Pizzichemi², T. Niknejad³, S. Tavernier³, M. Paganoni¹, E. Auffray²

¹*Università & INFN, Milano-Bicocca (IT),* ²*CERN (CH),* ³*LIP (PT)*

Conference Closing Friday 12:15-13:00

Session Chair: Etienne Auffray, Christian Pédrini

12:15 Conference Summary

C. Dujardin¹

¹*Institut Lumière Matière, UMR5306 Université Lyon1-CNRS (FR)*

12:35 SCINT Conference site in 2019

12:45 Conference Closure

E. Auffray¹

¹*CERN (CH)*

End of Conference Friday 13:00

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

- P1-01 A scintillator detector for beam tuning of low energy single electron accelerator**
Y. Xie, *Institute of High Energy Physics (CN)*
- P1-02 Application of a LaBr₃(Ce) Scintillation Detector to an Environmental Radiation Monitor**
Y.Y. Ji, *Korea Atomic Energy Research Institute (KR)*
- P1-03 Coincidence Resolution Time Measurements of LaBr₃ (Ce) Detectors with a Fully Digital Acquisition System.**
V. Sánchez-tembleque, *Grupo de Física Nuclear (ES)*
- P1-04 Scintillators in high-power laser driven experiments**
M. Tarisien, *CNRS-IN2P3 (FR)*
- P1-05 Fast scintillation X-ray detector using proportional-mode Si-APD and a HfO₂-nanoparticle-doped plastic scintillator**
S. Kishimoto, *KEK (JP)*
- P1-06 Development of SiPM based Scintillation Detector for Energy Selective X-ray Imaging**
C. Park, *Yonsei University (KR)*
- P1-07 Ti₂GdCl₅ (Ce³⁺): A new efficient scintillator for X- and γ -rays detection**
G. Rooh, *Abdul Wali Khan University (PK)*
- P1-08 Characterizing some detection properties of Zinc Oxide nanowires in Anodic Aluminium Oxide membrane, as a novel high spatial resolution X-ray imager**
F. Esfandi, *Amirkabir University of Technology (IR)*
- P1-09 High resolution Thick ZnO Nanowires in AAO Template for Hard X-Ray Imaging Applications**
S. Saramad, *Amirkabir University of Technology (IR)*
- P1-10 Li₂Se(Ag) A New Neutron Sensitive Scintillator**
R. Riedel, *Oak Ridge National Laboratory (US)*
- P1-11 Evaluation of ZnS/6LiF and ZnO/6LiF scintillation neutron detectors read out with SiPMs**
M. Hildebrandt, *Paul Scherrer Institut (CH)*

- P1-12 Neutron detection using Li-loaded scintillators coupled to a custom-designed silicon photomultiplier array**
F. Liang, *FLIR Systems Inc. (US)*
- P1-13 Novel scintillator screens for fast neutron detection with improved efficiency and spatial resolution**
B. Walfort, *RC Tritec AG (CH)*
- P1-14 Scintillation powders for neutron detection**
L. Fišerová, *University of Defence (CZ)*
- P1-15 Newly developed flexible thermal neutrons detectors containing 6LiF nanocrystals**
M. Vesco, *LNF-INFN (IT)*
- P1-16 Characterization of liquid scintillation detector BC501A**
S. Rawat, *Indian Institute of Technology, Roorkee*
- P1-17 Lithium di-silicate Li₂O₂SiO₂:Tb bright scintillation glass for thermal neutron detection**
Y. Tratsiak, *Institute for Nuclear Problems, BSU (BY)*
- P1-18 A study of ⁴⁰Ca¹⁰⁰MoO₄ scintillation crystals for the AMoRE-I experiment**
J. Lee, *Kyungpook National University (KR)*
- P1-19 Phonon-scintillation properties of molybdate crystals for neutrino-less double beta decay experiment**
H. Kim, *Institute of Basic Science (KR), Kyungpook National University (KR)*
- P1-20 Particle discrimination with low-temperature detectors based on CaMoO₄ scintillating crystals**
H.S. Jo, *Institute of Basic Science (KR)*
- P1-21 Pre-production and quality assurance of the Mu2e crystals**
R. Zhu, *California Institute of Technology (US)*
- P1-22 Pre-production and quality assurance of the Mu2e Silicon Photomultipliers**
S. Miscetti, *LNF-INFN (IT)*
- P1-23 A scintillator based charged particle veto system for the PADME experiment**
G. Georgiev, *University of Sofia (BG)*

- P1-24 Pulse Shape Discrimination with CsI(Tl) to Improve Hadron Particle Identification at High Energy Physics Experiments**
S. Longo, *University of Victoria (CA)*
- P1-25 PANDA Barrel Time-of-Flight Detector**
K. Suzuki, *Stefan Meyer Institute, Austrian Academy of Sciences (AT)*
- P1-26 Radiation Damage of CMS HCAL Scintillator/WLS fiber read-out during Run1 and Run2**
P. De Barbaro, *University of Rochester (US)*
- P1-27 The CMS ECAL Upgrade for Precision Crystal Calorimetry at the HL-LHC**
A. Jofrehei, *Institute for Research in Fundamental Sciences (IR)*
- P1-28 High Dynamic Range Front-End Circuit for SiPM-Based Read-out of Large LaBr₃ Crystals**
G. Montaganani, *Politecnico di Milano, INFN (IT)*
- P1-29 Characterization of Cs₂LiLaBr₆:Ce (CLLB) Scintillator with Silicon Photomultiplier Arrays**
A. Tuff, *Kromek Ltd. (UK)*
- P1-30 Development of SiPM-based X-ray counting scintillation detector for security applications**
D. Philippov, *National Research Nuclear University MEPhI (RU)*
- P1-31 Investigation on electron beam radiation defects induced in KETEK PM3350 silicon photomultipliers**
A. Stancalie, *National Institute for Laser Plasma and Radiation Physics, Center for Advanced Laser Technologies*
- P1-32 Implementation of an analytical model of SiPM in GATE**
M. Dupont, *Aix-Marseille University and CNRS/IN2P3 (FR)*
- P1-33 Measurements of Position and Depth of Interaction using Silicon PhotoStrip Sensors with a CsI(Tl) Crystal Scintillator**
H. Jeon, *Kyungpook National University (KR)*
- P1-34 Design of the fast radiation detector with 10-picosecond time resolution based on crossluminescence scintillator**
I. Kamenskikh, *Lomonosov Moscow State University (RU)*
- P1-35 Ionization Quenching Correction of Volumetric Organic Scintillators for use in Proton Therapy**
F. Alsanea, *The University of Texas, MD Anderson Cancer Center (US)*
- P1-36 Development of High Spatial Resolution Dosimeter for Medical Uses by Colorimetric Discrimination Method**
C. Shim, *SungKyunKwan University (KR)*
- P1-37 Scintillation materials for PET/MRI coupled to digital SiPM**
B. Seitz, *University of Glasgow (UK)*
- P1-38 Development and Evaluation of PET-Compton imager based on Ce:Gd₃Ga_{2.7}Al_{2.3}O₁₂ and CeBr₃ scintillators with SiPM arrays**
K. Shimazoe, *Tohoku University (JP)*
- P1-39 Development of a SiPM based DOI-PET detector module using depth-dependent reflector pattern within a single layer scintillator**
H. Song, *Yonsei University (KR)*
- P1-40 Development of a detector module suitable for Whole body PET with improved timing performance**
T. Niknejad, *LIP (PT)*
- P1-41 Temporal Imaging for PET: Coincidence Timing results on 20 mm LYSO crystals**
M. Hmissi, *Université de Technologie de Troyes (FR)*
- P1-42 Breast-dedicated PET system with a personalized gantry**
I. Kang, *Yonsei University (KR)*

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

- P2-01 Photoelastic sphenoscopic observations for reliable and fast inspection of anisotropic crystals**
P. Natali, *Università Politecnica delle Marche (IT)*
- P2-02 Vacuum Ultraviolet Luminescence Spectroscopy Setup at Max IV Laboratory**
V. Pankratov, *Max IV Laboratory, Lund University (SE)*
- P2-03 Enhanced emission of plastic scintillators by plasmonic lattice resonance**
B. Liu, *Tongji University (CN)*
- P2-04 Silica coating of scintillating nanoparticles**
K. Tomanová, *Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering (CZ)*
- P2-05 Composite scintillators with improved light yield, temporal and spatial resolutions**
A. Pokidov, *ISSP RAS (RU)*
- P2-06 Impact of wrapping materials and bonding adhesives on light transfer efficiency (LTE) and light transfer time spread (LTTS) in scintillation detectors**
F. Loignon-Houle, *Université de Sherbrooke (CA)*
- P2-07 Improvement of light extraction from scintillators due to the surface modification in microscale using Xe-PFIB**
P. Modrzyński, *Nanores (PL)*
- P2-08 Facile Synthesis of High Purity Anhydrous Complex Rare Earth Halides by the Modified Mixed-Salts-Dehydration Method**
J. Yu, *National Engineering Research Center for Rare Earth Materials (CN)*
- P2-09 Growth and Scintillation properties of Cs₂LiYCl₆ crystals doped with different Ce³⁺ concentration**
G. Ren, *Shanghai Institute of Ceramics, Chinese Academy of Sciences (CN)*
- P2-10 Photo-induced preparation of band-gap-engineered garnet powders**
J. Bárta, *Czech Technical University, Acad. of Sciences (CZ)*

- P2-11 Optical band gap engineering of chemically synthesized PbS thin films by in situ Sn doping for photovoltaic application**
F. Hone, *University of the Free State (ZA)*
- P2-12 LuAG:Pr³⁺ - BASED NANOHYBRID SYSTEMS FOR SINGLET OXYGEN GENERATION**
K. Popovich, *Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering (CZ)*
- P2-13 Scintillation characteristics of liquid phase epitaxy grown GAGG:Ce single crystalline films**
W. Chewpraditkul, *King Mongkut's University of Technology Thonburi (TH)*
- P2-14 Directionally Solidified Eu³⁺ and Y³⁺ Co-Doped HfO₂/α-Al₂O₃ Eutectic Scintillators**
A. Yoshikawa, *IMR, NICHe, Tohoku Univ., C&A Corp. (JP)*
- P2-15 Scaling and scintillation performance of TLYC:Ce**
I. Khodyuk, *CapeSym, Inc. (US)*
- P2-16 Growth and scintillation characteristics of a Cs₂Mo₂O₇ single crystal**
M. Lee, *Center for Underground Physics, IBS (KR)*
- P2-17 Optimization of dopant and scintillation fibers diameter of GdAlO₃/α-Al₂O₃ eutectic for X-ray phase imaging detector**
K. Kamada, *NICHe, Tohoku Univ., C&A Corp.*
- P2-18 High proportional LaBr₃:(Ce,Sr) scintillator at industrial scale, properties and characterization**
V. Ouspenski, *Saint-Gobain Recherche (FR)*
- P2-19 Single crystalline film scintillators based on the Ce³⁺ doped Ca₂RMgScSi₃O₁₂:Ce (R=Y, Lu) garnets**
Y. Zorenko, *Institute of Physics, Kazimierz Wielki University (PL)*
- P2-20 Scintillating screens based on the single crystalline films of Eu³⁺ doped mixed RAlO₃ (R= Tb, Gd, Lu) perovskites**
Y. Zorenko, *Institute of Physics, Kazimierz Wielki University (PL)*
- P2-21 Czochralski growth of YAG- and LuAG-based scintillators under reducing conditions.**
P. Arhipov, *Institute for Scintillation Materials, NAS (UA)*
- P2-22 EFG Growth of SrI₂(Eu) and CLYC Scintillators**
S. Swider, *CapeSym, Inc. (US)*

- P2-23 Crystal Growth and Scintillation Properties of Ce doped Barium Lanthanide Chlorides**
Y. Furuya, *C&A Corp., Tohoku University (JP)*
- P2-24 Control of dopant segregation in colquiriite-type fluoride single crystal scintillators**
Y. Yokota, *Tohoku University (JP)*
- P2-25 Structure and luminescence of $\text{Li}_2\text{O}-x\text{GeO}_2$ glass-ceramics doped with some three charged ions**
S. Nedilko, *Taras Shevchenko National University of Kyiv (UA)*
- P2-26 The effect of bandgap energy and electron trap of Ce-doped Y-admixed lanthanum gadolinium pyrosilicate scintillator**
T. Horiai, *Institute for Materials Research, Tohoku University (JP)*
- P2-27 Crystal growth and optical properties of benzoic acid crystals for neutron scintillator**
A. Yamaji, *Tohoku University (JP)*
- P2-28 Industrial development of fast scintillator materials**
S. Sykorova, *CRYTUR Ltd. (CZ)*
- P2-29 Scintillation properties and radiation tolerance of Alkali Free Fluorophosphate Glasses with different dopant concentrations**
M. Lucchini, *CERN (CH)*
- P2-30 Radiation hardness investigation of $\text{ZnO}(\text{Ga})$ and $\text{ZnO}(\text{In})$ with heavy ion beams.**
P. Boutachkov, *GSI (DE)*
- P2-31 Radiation tolerant YAGG:Ce scintillation material for collider experiments**
V. Dormenev, *Justus Liebig University Giessen (DE)*
- P2-32 Radiation damage of LaF_3 doped with rare-earth impurities**
E. Radzhabov, *Institute of Geochemistry SB RAS (RU)*
- P2-33 Scintillation Efficiency and Position Sensitivity for Radiation Events in Plastic Scintillators**
N. Tran, *The Graduate University for Advanced Studies (JP)*
- P2-34 Proton-Induced Radiation Damage in BaF_2 , BGO, LYSO and PWO Crystal Scintillators**
L. Zhang, *California Institute of Technology (US)*

- P2-35 Neutron-Induced Radiation Damage in BaF_2 , LYSO and PWO Crystals**
L. Zhang, *California Institute of Technology (US)*
- P2-36 Radiation damage tests of diamond and scintillation detector components for the ITER Radial Neutron Camera**
A. Cemmi, *ENEA (IT)*

Session Chair: Rémi Chipaux, Kristof Pauwels, Marco Pizzichemi

P3-01 Light pulse decays and non-proportionality characteristics of CsI:TI at temperatures down to -70°C

Z. Mianowska, *National Centre for Nuclear Research (PL)*

P3-02 Cerium-doped gadolinium fine aluminum gallate (Ce:GFAG) in scintillation spectrometry

J. Iwanowska-Hanke, *National Centre for Nuclear Research (PL)*

P3-03 Effects of lanthanum substitution on the band gap and luminescence properties of (Gd_{1-x}La_x)₂Si₂O₇:Ce scintillator

Q. Wei, *China Jiliang University (CN)*

P3-04 Scintillation properties of Gd₃(Al_{5-x}Ga_x)O₁₂:Ce; x = 2.3, 2.6, 3.0 single crystals

W. Chewpraditkul, *King Mongkut's University of Technology Thonburi (TH)*

P3-05 Comparative study of GdLu₂Al₂Ga₃O₁₂:Ce and GdY₂Al₂Ga₃O₁₂:Ce scintillation crystals for γ -ray detection

O. Sakthong, *King Mongkut's University of Technology Thonburi (TH)*

P3-06 Intrinsic energy resolution in CeBr₃ detector

S. Rawat, *Indian Institute of Technology (IN)*

P3-07 Efficiency studies on Gd₃Ga₃Al₂O₁₂ scintillators: Simulations and measurements

S. Rawat, *Indian Institute of Technology (IN)*

P3-08 Effect of Co-doping on Pulse Shape Discrimination Properties of Gd₃Ga₃Al₂O₁₂:Ce Scintillators

S. Rawat, *Indian Institute of Technology, Roorkee*

P3-09 Study of the time response of a CLYC scintillator

V. Vedia, *Universidad Complutense de Madrid (ES)*

P3-10 Scintillation and timing characteristics of 1-inch diameter CeBr₃ scintillator single crystal

M. Yoshino, *IMR, Tohoku University, C&A Corp. (JP)*

P3-11 Reduced Afterglow CsI:TI,Sm for High Energy Imaging

V. Nagarkar, *Radiation Monitoring Devices, Inc. (US)*

P3-12 Optical and radioluminescent properties of ZnO, ZnO:Ga and ZnO:In ceramics

K. Chernenko, *Peter the Great Saint-Petersburg Polytechnic University, Polytekhnikeskaya 29, 195251 St.Petersburg, Russia*

P3-13 CeBr₃ - a well characterized new scintillator for gamma-ray spectrometry

W. Westmeier, *Dr. Westmeier GmbH (DE)*

P3-14 Afterglow and quantum tunneling in Ce-doped lutetium aluminum garnet

E. Mihóková, *Institute of Physics, Academy of Sciences of the Czech Republic,*

P3-15 Response of alpha particles in GAGG:Ce scintillators and correlation with non-proportionality patterns down to 0.1 keV

P. Sibczynski, *National Centre for Nuclear Research (PL)*

P3-16 Temperature Quenching of Radio- and Photoluminescence of Y₃(Ga,Al)₅O₁₂:Ce³⁺ and Gd₃(Ga,Al)₅O₁₂:Ce³⁺ Garnet Ceramics

I. Venevtsev, *Peter the Great St. Petersburg Polytechnic University (RU)*

P3-17 Luminescence properties of rare earth ions in novel garnets and glasses

A. Vaitkevicius, *Vilnius University (LT)*

P3-18 Scintillation parameters improvement of LuAG:Ce epitaxial films by Mg co-doping

P. Prusa, *Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering (CZ)*

P3-19 Thermoluminescence evidence of grain boundary structural disorder in LuAG:Ce optical ceramics

F. Moretti, *Department of Materials Science, University of Milano-Bicocca (IT)*

P3-20 Role of defects in formation of the luminescence centers in ZnMoO₄ crystals

Y. Hizhnyi, *Taras Shevchenko National University of Kyiv*

P3-21 Luminescence, scintillation and energy transfer in the doubly doped LuAG:Pr,Dy single crystal

J. Páterek, *Acad. of Sciences of the Czech Rep. (CZ)*

- P3-22 Effects of Annealing and Mg-codoping on Luminescence and Scintillation Properties of Ce Doped Garnet-Based Scintillator Grown by Micro Pulling Down Method**
K. Kamada, *NICHe, Tohoku Univ., C&A Corp.*
- P3-23 Luminescent ZnO:Ga nanopowder: Surface passivation and limiting the particle agglomeration**
L. Prochazkova, *Czech Technical University in Prague (CZ)*
- P3-24 Scintillation Properties of TIGd₂Cl₇ (Ce³⁺) Single Crystal**
A. Khan, *Kyungpook National University (KR)*
- P3-25 Luminescence and Scintillation properties of novel disodium dimolybdate (Na₂Mo₂O₇) single crystal**
I. Pandey, *Kyungpook National University (KR)*
- P3-26 Temperature dependence of Ce³⁺ emission kinetics in Mg²⁺ co-doped GAGG:Ce epitaxial garnet films**
M. Kucera, *Charles University (CZ)*
- P3-27 Luminescence of LiLa₉(SiO₄)₆O₂ silicate crystals doped with Ce³⁺ and Pr³⁺ ions**
V. Pustovarov, *Ural Federal University (RU)*
- P3-28 Suppression of the Slow Scintillation Component in BaF₂ Crystals by Y³⁺ Doping**
J. Chen, *CalTech (US), Shanghai Institute of Ceramics, Acad. of Sciences (CN)*
- P3-29 Role of yttrium in thermoluminescence of LYSO:Ce crystals**
D. Ding, *Shanghai Institute of Ceramics, Chinese Academy of Sciences (CN)*
- P3-30 Improved cathodoluminescence performance of Mg-doped LuAG:Ce(GdGa) single crystalline films**
O. Lalinský, *Institute of Scientific Instruments of the Czech Academy of Sciences (CZ)*
- P3-31 Luminescent properties of Cesium Hafnium Chloride scintillators doped with alkaline earth metals**
S. Kodama, *Tohoku University (JP)*
- P3-32 Characterizations and simulations of structured scintillators for synchrotron applications**
P.A. Douissard, *ESRF (FR)*

- P3-33 Luminescence and Scintillation properties of Ce-doped GdBO₃ nanophosphor synthesized by aqueous sol-gel method**
M. Seraiche, *Université Clermont Auvergne, UMR6296 CNRS (FR)*
- P3-34 Innovative LaBr₃(Ce) geometries optimized for fast timing applications**
M. Vedia Fernandez, *Universidad Complutense de Madrid (ES)*
- P3-35 Influence of gallium content and position on thermally stimulated luminescence of multicomponent (Y,Lu,Gd)₃(Ga,Al)₅O₁₂:Ce garnets**
V. Babin, *Institute of Physics of the Czech Academy of Sciences (CZ)*
- P3-36 Luminescence Properties of Mn⁴⁺ Doped CaY₂[MgM](AlSi₂)O₁₂ (M = Al, Sc, Ga) Garnets**
S. Vielhauer, *Institute of Physics, University of Tartu (EE)*
- P3-37 Effect of Au Co-Doping on the Scintillation Performance of BaBrCl:Eu Single Crystal**
T. Shalapska, *Lawrence Berkeley National Laboratory (US)*
- P3-38 Optical properties of Eu²⁺ doped BaBrI, BaClI and SrBrI crystals**
R. Shendrik, *Institute of Geochemistry SB RAS (RU)*
- P3-39 Scintillation properties of high-resolution La(Br_xCl_{1-x})₃:Ce and high-sensitivity CeBr₃ crystals**
S. Petrak, *Hellma Materials GmbH (DE)*
- P3-40 Connection between TSL and afterglow in mixed oxide garnet ceramics**
V. Khanin, *Peter the Great St. Petersburg Polytechnic University (RU)*
- P3-41 The emission centers in YAG crystals grown in various conditions**
S. Vasyukov, *Institute for Scintillation Materials, NAS (UA)*