Monday, September 23, 2013

8:30–9:30	**Registration**
09:30–09:40	**Conference Opening**

Chair: B. Grinyov

09:40–10:00	Introduction ***A. Gektin***
10:00–10:45 Mon-1	Interband photon density response: light yield and nonlinearity without electron tracks ***R. T. Williams****, Qi Li, K. B. Ucer, and Joel Q. Grim*
10:45–11:10	**Coffee break**

Session 1. Fundamentals (1)

Chair: A. Vasil'ev

11:10–11:45 Mon-2	From interband photon density response to scintillation: adding tracks, gradients, and high-energy electrons ***Joel Q. Grim****, Qi Li, K. B. Ucer, and R. T. Williams*
11:45–12:20 Mon-3	Carrier self-trapping in NaI and SrI_2 from first principles calculations ***P. Erhart****, D. Åberg, and B. Sadigh*
12:20–14:00	**Lunch**

Session 2. General

Chair: M. Moszynski

14:00–14:35 Mon-4	Factors influencing the energy loss channels related to the creation/transformation of defects in wide gap materials ***A. Lushchik***
14:35–15:10 Mon-5	Limits of inorganic crystalline materials to operate in a high dose rate irradiation environment at collider experiments ***M. Korjik***
15:10–15:45 Mon-6	Non-proportionality measurements of fast and slow decay mode in NaI:Tl ***L. Swiderski****, M. Moszynski, W. Czarnacki, M. Grodzicka, J. Iwanowska, P. Sibczynski, A. Syntfeld-Kazuch, M. Szawlowski, T. Szczęśniak*
15:45–16:10	**Coffee break**
16:10–18:00	**Poster session**
18:00	**Welcome party**

Tuesday, September 24, 2013

Session 3. Fundamentals (2)

Chair: R.T. Williams

09:00–09:35 Tue-1	Mechanisms of scintillator radiation response: Insights from Monte Carlo simulations ***S. Kerisit**, Zh. Wang, D. Wu, R. T. Williams, Joel Q. Grim, and F. Gao*
09:35–10:10 Tue-2	Microscopic Mechanisms of Electron-Hole Generation and Their Spatial Distribution in Inorganic Scintillators ***F. Gao**, Y. Xie, D. Wu, S. Kerisit, M. P. Prange , L. W. Campbell, R. M. Van Ginhoven*
10:10–10:45 Tue-3	Absolute light output of scintillators ***M. Moszynski***
10:45–11:10	**Coffee break**

Session 4. Luminescence (1)

Chair:G. Bizarri

11:10–11:40 Tue-4	Interplay of different relaxation, recombination, and capture/release channels in scintillators ***A. Vasil'ev***
11:40–12:15 Tue-5	Electron thermalization length following the photoionization of an impurity ion *A.N. Vasil'ev, A. Belsky, K.V. Ivanovskikh, M.-F. Joubert and **C. Dujardin***
12:15–12:35 Tue-6	Excitonic and activator channels of recombination in binary crystals studied using activated CsI ***S. Gridin**, A. Belsky, N.Vasil'ev, N. Shiran, A. Gektin*
12:35–14:00	**Lunch**

Session 5. Mixed scintillators

Chair: C. Dujardin

14:00–14:35 Tue-7	Local structure effects in mixed scintillators ***A. Belsky**, A. Vasil'ev, A. Gektin*
14:35–15:10 Tue-8	Light output and atomic size factor in mixed scintillation crystals ***O. Sidletskiy**, A. Gektin, B. Grinyov, A. Belsky*
15:10–15:30 Tue-9	The modification of energy transfer in the solid solutions of tungstates and RE-doped borates ***D. Spassky**, S. Omelkov, H. Mägi, V. Levushkina, V. Mikhailin, N. Krutyak, I. Tupitsyna, A. Dubovik, A. Yakubovskaya, A. Belsky, M. Tret'yakova, B. Zadneprovski*
15:30–16:00	**Coffee break**

Session 6. Specific applications

Chair: N. Galunov

16:00–16:35 Tue-10	Cryogenic scintillating materials ***E. Savchenko***
16:35–17:10 Tue-11	Scintillators to investigate rare processes in nuclear and particle physics ***F. Danevich***
17:10–17:30 Tue-12	Increasing the scintillating efficiency of plastic scintillator ***P. Zhmurin***

Wednesday, September 25, 2013

Session 7. Fundamentals (3)

Chair: S. Kerisit

09:00–09:35 Wed-1	Features of an ionizing particle track formation and it influence on a scintillation process in organic molecular media ***N.Z. Galunov****, O.A. Tarasenko*
09:35–10:05 Wed-2	Unresolved questions in description of scintillation process ***A. Vasil'ev***
10:05–10:25	**Coffee break**

Session 8. Experimental physics

Chair: A. Lushchik

10:25–11:00 Wed-3	Picosecond time-resolved studies of scintillation materials and processes ***K. B. Ucer****, Joel Q. Grim, Qi Li, and R. T. Williams*
11:00–11:35 Wed-4	Tailoring optical properties of scintillator materials ***I. Kamenskikh***
11:35–11:55 Wed-5	Multi-component garnet scintillating screens for micro X-ray imaging ***Yu. Zorenko****, V. Gorbenko, T. Martin, P.-A Douissard*
11:55–12:25 Wed-6	The recent progress technology on single crystals fibers grown from the melt for detection and scintillation applications ***K. Lebbou***
12:25–14:00	**Lunch**
14:00–18:00	**ISMA crystal museum/exhibition** **Kharkov city tour**
Evening	**Conference banquet**

Thursday, September 26, 2013

Session 9. Halide scintillators

Chair: L. Swiderski

09:00–09:35 Thu-1	Physics of bright halide scintillators ***G. Bizarri***
09:35–10:10 Thu-2	Crystal Growth of Alkali Earth Halides ***E. Bourret-Courchesne***
10:10–10:45 Thu-3	State of surface and scintillation response of hygroscopic crystals to excitation by X-rays and low energy gamma-rays ***A. Kudin***
10:45–11:10	**Coffee break**

Session10. Oxide scintillators

Chair: O. Sidletskiy

11:10–11:45 Thu-4	Development of high performance oxide scintillators ***A. Yoshikawa***
11:45–12:05 Thu-5	Structure, luminescent and scintillation characteristics of $REAO_4$ compounds (RE=Y, Sc, La, Lu, and Gd, A=V, Ta) ***O.V. Voloshina****, S.V. Neicheva, I.M. Zenya, S.S. Gridin, V.N. Baumer, O.Ts. Sidletskiy*
12:05–12:35 Thu-6	Luminescence excitation spectra of scintillators in XUV photon energy range ***E. Meltchakov****, A. Belsky, A. Vasil'ev, A. Giglia , F. Moretti, C. Dujardin, A. Gektin, S. Nanaronne*
12:35–14:00	**Lunch**

Session 11. Luminescence (2)

Chair: A. Vedda

14:00–14:35 Thu-7	What we know and what we do not know about crossluminescence ***V. Makhov***
14:35–14:55 Thu-8	Electronic excitations in fluoride nanoparticles ***A.S. Voloshinovskii****, V.V. Vistovskyy, A.V. Zhyshkovych, A.V. Gektin, A.N. Vasil'ev*
14:55–15:15 Thu-9	Energy transfer studies in (Y,Tb)AG:Ce ***V. Khanin****, P. Rodnyi, A.-M. Van Dongen, D. Buettner, C. Ronda*
15:15–15:45	**Coffee break**

Session 12. Defects

Chair: A. Belsky

15:45–16:20 Thu-10	Center-trap aggregations in oxide scintillators ***A. Vedda***
16:20–16:55 Thu-11	Structure defects and halide scintillator performance ***N. Shiran**, I. Boiaryntseva*
16:55–17:15 Thu-12	Excitation relaxation in pure and Tl and Eu activated NaI lattice ***S. Vasyukov**, S. Gridin, A. Gektin, A. Belsky, N. Shiran, V. Vistovskyy*

Friday, September 27, 2013

Session 13. New scintillation materials (1)

Chair: A.Yoshikawa

09:00–09:20 Fri-1	Crystalline structured scintillators ***H. B. Bhandari**, H. Sabet, S. R. Miller, H. B. Barber and V. V. Nagarkar*
09:20–09:40 Fri-2	New phosphor family: RE-doped ternary sulfide $ALnS_2$ (A = Rb, K; Ln = La, Gd, Lu) ***V. Jarý**, L. Havlák, E. Mihókov1, J. Bárta, M. Nikl*
09:40–10:00 Fri-3	Crystal engineering of $Gd_2Si_2O_7$-based scintillators ***Ia. Gerasymov***
10:00–10:30	**Coffee break**

Session 14. New scintillation materials (2)

Chair: E.Bourret-Courchesne

10:30–10:50 Fri-4	Alkali-earth halide scintillators grown by Czochralski technique ***E. Galenin**, V. Romanchuk, S. Vasyukov, S. Gridin, A. Gektin*
10:50–11:10 Fri-5	New types of chalcogenide scintillators based on wide-band-gap A^2B^6-compounds *N.G. Starzhinskiy, B.V. Grinyov, V.P. Seminozhenko , V.D. Ryzhikov, A.V. Gektin,* ***A.V. Zhukov**, I.M. Zenya, A.I. Lalayants, N.O. Kovalenko, D. Shevchenko, G. Tamulaitis*
11:10–11:30 Fri-6	Development and application of $CdWO_4$ crystal scintillators from enriched isotopes for double beta decay search ***D.V. Poda**, A.S. Barabash, P. Belli, R. Bernabei, R.S. Boiko, V.B. Brudanin, F. Cappella, V. Caracciolo, S. Castellano, R. Cerulli, D.M. Chernyak, F.A. Danevich, S. d'Angelo, V.Ya. Degoda, M.L. Di Vacri, A.E. Dossovitskiy, A. Incicchitti, V.V. Kobychev, S.I. Konovalov, G.P. Kovtun, M. Laubenstein, A.L. Mikhlin, V.M. Mokina, S. Nisi, R.B. Podviyanuk, O.G. Polischuk, A.P. Shcherban, V.N. Shlegel, D.A. Solopikhin, V.I. Tretyak, V.I. Umatov, Ya.V. Vasiliev, V.D. Virich*
11:30–12:30	**Discussion**
12:30–12:40	**Conference closing**
12:40–14:00	**Lunch**