

2nd TCT Workshop

Report of Contributions

Contribution ID: 2

Type: **not specified**

Advanced TCT systems

Monday, 17 October 2016 10:00 (30 minutes)

Presenter: ZAVRTANIK, Marko (Jozef Stefan Institute (SI))

Session Classification: TCT systems

Contribution ID: 3

Type: **not specified**

Two photon absorption Transient Current Technique System

Monday, 17 October 2016 10:30 (30 minutes)

Presenter: FERNANDEZ GARCIA, Marcos (Universidad de Cantabria (ES))

Session Classification: TCT systems

Contribution ID: 4

Type: **not specified**

Understanding pulse shapes at high fluences

Monday, 17 October 2016 12:20 (20 minutes)

Presenter: MIKUZ, Marko (Jozef Stefan Institute (SI))

Session Classification: Practical issues(tips and tricks)

Contribution ID: 5

Type: **not specified**

TCT pulse analysis and corrections

Monday, 17 October 2016 12:40 (20 minutes)

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: Practical issues(tips and tricks)

Contribution ID: 6

Type: **not specified**

Single event effect tests with focused light

Presenter: KORPAR, Samo (Jozef Stefan Institute (SI))

Session Classification: New ways of using TCT

Contribution ID: 7

Type: **not specified**

Laboratory results on LGADs (Timing)

Monday, 17 October 2016 11:20 (20 minutes)

Presenter: FERRERO, Marco (Universita e INFN Torino (IT))

Session Classification: New ways of using TCT

Contribution ID: 8

Type: **not specified**

TCT in presence of continuous illumination - studies of bulk material

Monday, 17 October 2016 11:40 (20 minutes)

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: New ways of using TCT

Contribution ID: 9

Type: **not specified**

Edge TCT on AMS H35 HV-CMOS devices

Monday, 17 October 2016 16:00 (20 minutes)

Presenter: CAVALLARO, Emanuele (IFAE - Barcelona (ES))

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: **10**

Type: **not specified**

TCT measurements on 3D detectors

Tuesday, 18 October 2016 09:50 (20 minutes)

Presenter: SIMON, Lluís

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 11

Type: **not specified**

Edge-TCT measurements

Tuesday, 18 October 2016 09:30 (20 minutes)

Presenter: FEINDT, Finn (University of Hamburg)

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 12

Type: **not specified**

Mobility measurements

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 13

Type: **not specified**

Beam locator/Beam monitoring/Support PCBs

Monday, 17 October 2016 13:00 (10 minutes)

Presenters: KRAMBERGER, Gregor (Jozef Stefan Institute (SI)); WONSAK, Sven (University of Liverpool (GB))

Session Classification: Practical issues(tips and tricks)

Contribution ID: 14

Type: **not specified**

Diode measurements and pulse analysis with TCT

- 1.) Analysis of the signal - reflection
- 2.) Mobility measurements

Session Classification: Hands on experience

Contribution ID: 15

Type: **not specified**

Scanning TCT - example of operation

- 1.) Beam condition monitoring at work (fibre split and in-beam version)
- 2.) Cabling issues and related problems
- 3.) Tuning the right signal
- 4.) Beam locator

Session Classification: Hands on experience

Contribution ID: 16

Type: **not specified**

Edge-TCT measurements on different HVCMOS devices

Monday, 17 October 2016 16:20 (20 minutes)

Presenter: HITI, Bojan (Jozef Stefan Institute (SI))

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 17

Type: **not specified**

Comparison of different simulations tools and update on KDetSim

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: **18**

Type: **not specified**

TCAD simulations

Presenter: BOMBEN, Marco (Centre National de la Recherche Scientifique (FR))

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 19

Type: **not specified**

Update on TRACS simulation

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 20

Type: **not specified**

Comparison of different signal simulation tools

Tuesday, 18 October 2016 11:10 (20 minutes)

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: Simulations

Contribution ID: 21

Type: **not specified**

TCAD simulations

Tuesday, 18 October 2016 11:30 (20 minutes)

Presenter: BOMBEN, Marco (Centre National de la Recherche Scientifique (FR))

Session Classification: Simulations

Contribution ID: 22

Type: **not specified**

Update on TRACS

Tuesday, 18 October 2016 11:50 (10 minutes)

Presenter: FERNANDEZ GARCIA, Marcos (Universidad de Cantabria (ES))

Session Classification: Simulations

Contribution ID: 23

Type: **not specified**

Update on KDetSim

Tuesday, 18 October 2016 12:00 (10 minutes)

Presenter: KRAMBERGER, Gregor (Jozef Stefan Institute (SI))

Session Classification: Simulations

Contribution ID: 24

Type: **not specified**

TCT measurements on diodes

Tuesday, 18 October 2016 10:10 (20 minutes)

Presenter: HOLMKVIST, William (C)

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 25

Type: **not specified**

Resolving authentic time dependence of time-of-flight photocurrent in organic semiconductors

Monday, 17 October 2016 12:00 (20 minutes)

Time-of-flight photoconductivity (TOF) is a powerful method, which is used to study conversion of photons to electrons and their transport through thin organic semiconductor layers. Compared to current-voltage characterization methods, TOF results are unaffected by the spurious effects at the semiconductor/metal interfaces. Precise knowledge of photocurrent time-dependence is of crucial importance for the determination of charge transport parameters such as mobility and the width of charge transporting states. Our TOF measurements of single-crystals of dioctyl-benzothienobenzothiophene (C8-BTBT) show that transport of photexcited carriers and the corresponding photocurrent across two coplanar metal contacts separated by 120 μm , occurs in a fraction of a microsecond. However, measured time-dependent photocurrent ($I(t)$), compared to theoretical predictions, showed additional peaks and significant broadening of the $I(t)$ lineshape. We found that additional peaks correspond to signal reflections from the waveguide terminations. And peaks broadening occurs due to 3-ns duration of the photoexcitation laser. Direct deconvolution of the measured signal was not possible due to signal reflections and relatively high noise-to-signal ratio. Therefore we estimated a time dependence of the photocurrent, which reproduced the measured signal transient. Estimated $I(t)$ was considered as an authentic TOF response of the material under investigation.

Presenter: PAVLICA, Egon (University of Nova Gorica)

Session Classification: New ways of using TCT

Contribution ID: 26

Type: **not specified**

Temperature dependance of LGAD response

Tuesday, 18 October 2016 10:30 (20 minutes)

Presenter: MULARGIA, Roberto (Universita e INFN Torino (IT))

Session Classification: Results from recent TCT measurements on different detector structures

Contribution ID: 27

Type: **not specified**

Welcome

Monday, 17 October 2016 09:55 (5 minutes)