TeraHertz

NOVEL TECHNOLOGIES AND MATERIALS FOR TERAHERTZ RADIATION CONTROL

INFORMATION ON THE PROJECT

Project name: Novel Technologies and Materials for TeraHertz Radiation Control
Project number: 101086493
Project acronym: TeraHertz
Topic: HORIZON-MSCA-2021-SE-01-01
Type of action: HORIZON TMA MSCA Staff Exchanges

LEARN MORE AT:

Project website
https://terahertz-project.eu

HORIZON EUROPE

Work Packages (WPs)

- **WP1** Project Coordination
- **WP2** Analysis and Selection of Crystalline and Nanoporous Materials
- **WP3** Investigation of the Selected Materials in the THz Range
- **WP4** 3D Spatial Anisotropy Analysis and Computer Simulations
- **WP5** Manufacturing and Investigation of Crystalline Nanocomposites and Semiconductor Coplanar Structures
- **WP6** Fabrication and Characterization of Laboratory Prototypes for THz Radiation Control
- **WP7** Implementation of Laboratory Prototypes into Innovative Products
- **WP8** Dissemination and Communication Activities

The project focuses on developing novel technologies and materials characterization that are to be used synergistically to create advanced possibilities for terahertz radiation control.

The project brings together an international multidisciplinary network of organizations from academia and industry that will work coherently on the innovative research program on quasi-optical technologies and related material engineering.

Funded by the European Union under the Horizon Europe TeraHertz project (Grant Agreement 101086493). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

RESEARCH OBJECTIVES:

- Organizing the Research and Network-wide Training Programme
- Review of the State-of-the-Art in the Research Field and Selection of Dielectric/ Semiconductor Crystalline and Nanocomposite Materials for Investigation
- Development and Approbation of Techniques for Materials Characterization in THz Spectral Range
- Three-dimensinal Analysis of the Spatial Anisotropy and Choosing the Most Effective Geometries of the Investigated Materials
- Studying the Influence of the Intensities of the Exciting Optical Beam and the Applied External Electric Field on the Properties of the Investigated Semiconductor Materials
- Fabrication and Testing of Laboratory Prototypes of Highly Efficient Quasi-optoelectronic Cells from Bulk Dielectric/ Semiconductor Crystalline Materials
- Manufacturing and Testing the Laboratory Prototypes of Quasi-optoelectronic Cells Based on the Photogeneration of Carriers in Semiconductor Materials and its Coplanar Structures
- Translation of the Quasi-optical Technologies and Engineered Materials into Innovative Products

LIST OF PARTICIPANTS:

PARTICIPANT NO	ORGANIZATION NAME		SHORT NAME
1	Lviv Polytechnic National University	LPNU	Ukraine
2	Warsaw University of Technology	WUT	Poland
3	Scientific research company Electron-Carat - branch of private joint stock company Concern-Electron	CARAT	Ukraine
4	University of Angers	UA	France
5	Czestochowa University of Technology	PCz	Poland
6	Private Enterprise Softpartners	SPC	Ukraine
7	Energia Oze Spolka z Ograniczona Odpowiedzialnoscia	ENOZE	Poland

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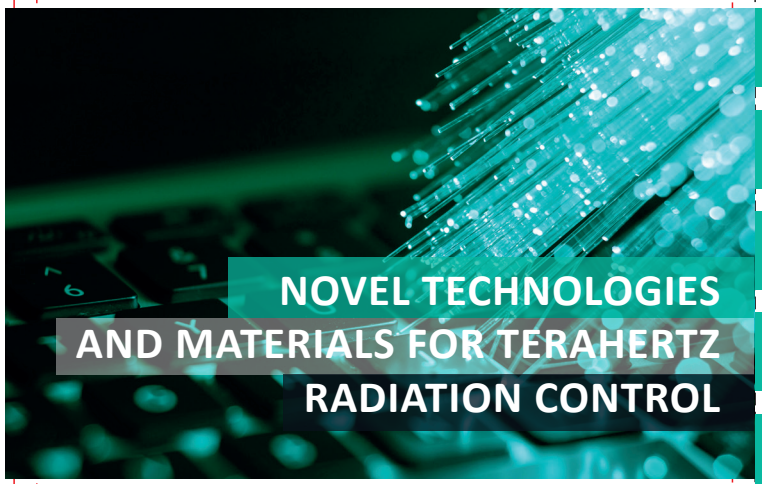

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