

EUROMAT 2021

EUROPEAN CONGRESS AND EXHIBITION
ON ADVANCED MATERIALS AND PROCESSES

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12. - 16. SEPTEMBER 2021

GRAZ, AUSTRIA

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THE AUSTRIAN SOCIETY FOR
METALLURGY AND MATERIALS

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Area E: Energy and Environment

Symposium: E5

Title: New Concepts, Materials and Technologies for Photovoltaic Devices		
Organizer	Institution	Contact email
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Abstract		
<p>Nowadays, the production of solar cells and photovoltaic modules is growing rapidly once again. The number of new PV installations has increased significantly in many European countries. The most popular type of solar cell used in commercial modules is the PERC cell. This type of solar cells has already reached the limit of efficiency for single-junction solar cells. Even though prices have dropped to their lowest level in history, cheaper or more efficient solutions are still desired.</p> <p>The planned Symposium addresses all the concepts of materials and technologies required to form a cell or PV module. Beyond this general scope, specific topics will be highlighted to provide focal points for contributions. Session topics will be:</p> <ol style="list-style-type: none">1. High efficiency industrial solar cell technology.2. Low cost industrial solar cell technology - financial aspects and policy.3. Characterization & modelling.4. Si-based tandem solar cells, perovskites, other non-silicon materials.5. PV module technology – operation, storage, integration.6. New materials and concepts for solar cells and PV modules.7. Multifunctional thin-film coatings for application in photovoltaics.8. Transparent electronics based on thin-film nanomaterials for photovoltaic applications. <p>The papers presented within these topics focused on research, development, design, production, measurement, testing of PV cells and modules will be published in two journals indexed in Web of Science: Journal of Materials and Performance; Archives of Metallurgy and Materials Science.</p>		

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For all of these, specific session flyers detailing the content will be prepared and distributed. Further topics may emerge from the submissions received.

All symposium organizers have significant experience with EUROMAT, and all can rely on a broad network of contacts in the areas covered by the symposium, thus ensuring a significant number of contributions. To motivate further contributors, the organizers plan to directly address EU funded projects from the symposium's thematic areas and suggest EUROMAT to them as ideal platform for publication of their results, discussion, and cross-project exchange. For this, we reserve the possibility of creating a special session, potentially with direct EU support.