

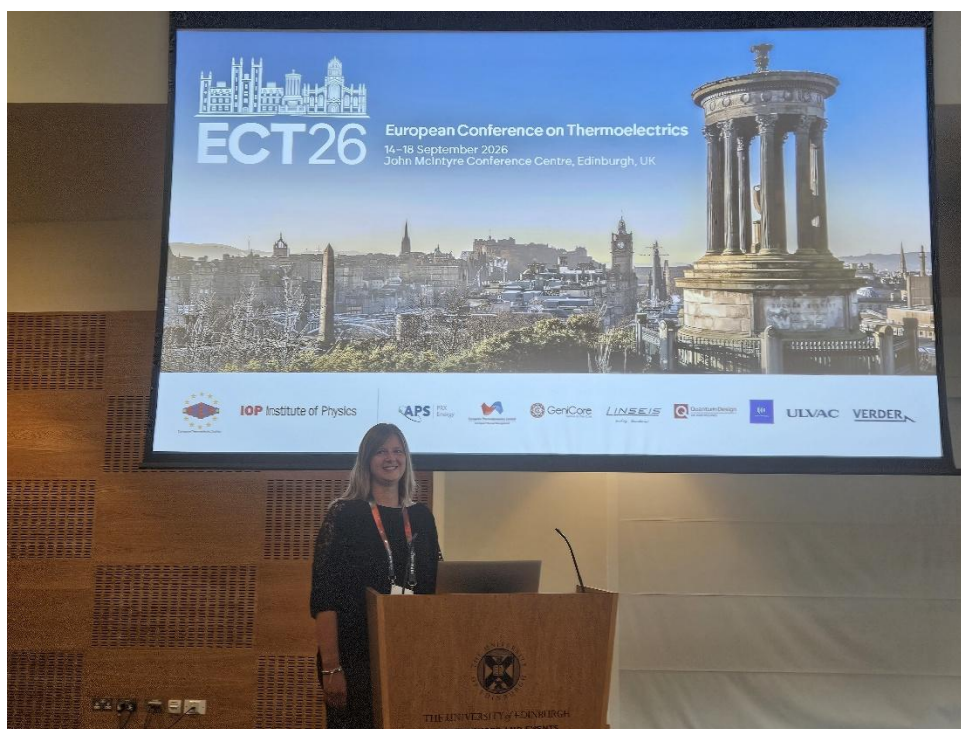
Thermoelectrics in Scotland

European Conference on Thermoelectrics (ECT26) in Edinburgh, UK

From September 14 to 18, 2026, the European Conference on Thermoelectrics (ECT26) took place in Edinburgh, Scotland, United Kingdom.

The presentation “Powder Aerosol Deposition of Bi_2Te_3 : Thermoelectric Properties from Thick Films to Bulk-Like Samples” demonstrated that the Powder Aerosol Deposition (PAD) method enables the rapid fabrication of dense Bi_2Te_3 thermoelectric materials at room temperature, ranging from thin films to bulk-like components.

The thermoelectric performance is characterized as a function of temperature over the relevant operating range. Seebeck coefficient, electrical conductivity, thermal conductivity, and Hall measurements are used to determine the charge carrier concentration and mobility of charge carriers, with a particular emphasis on anisotropic transport properties. Structure-property relationships are investigated by comparing μm -thick and bulk PAD Bi_2Te_3 samples before and after thermal annealing and in dependence on temperature. This provides insights into the potential of PAD as a versatile fabrication process for thermoelectric materials across different thickness scales.



Dr. Daniela Schönauer-Kamin presented the story