

• Optics and Photonics for Advanced Energy Technology

Postdeadline Paper Abstracts •

ThE • Postdeadline Papers

Wong Auditorium

5:20 p.m.–5:56 p.m.

Fred Leonberger; MIT, USA, Presider

ThE1 • 5:20 p.m.

Chiral Fibers for Harsh Environments,

Victor I. Kopp¹, Victor M. Churikov¹, Dan

Neugroschl¹, Azriel Z. Genack^{1,2}; ¹Chiral

Photonics, Inc., USA, ²Queens College of

CUNY, USA. Periodic Chiral fibers

produced by twisting optical fibers can be

fashioned from glasses selected for their

robustness in harsh environments. For

example, temperature sensors produced by

twisting pure silica microstructured fiber

operate beyond 1000 C.

ThE2 • 5:32 p.m.

Nanostructured Solar Cells for Control of

Exciton Recombination, *Luat T. Vuong¹,*

Gregory Kozyreff², Jordi Martorell^{1,3}; ¹ICFO-

Inst. de Ciències Fotoniques, Spain, ²Optique

Nonlinéaire Théorique, Univ. Libre de Bruxelles

(ULB), Belgium, ³Univ. Politècnica de

Catalunya, Spain. We calculate the position-

dependent exciton lifetimes in a Schottky

solar cell and demonstrate enhanced device

performance due to inhibited spontaneous

emission.

ThE3 • 5:44 p.m.

SOFT OPTICS, *Sheila Kennedy^{1,2}, Murat*

Mutlu²; ¹Kennedy and Violich Architecture,

Ltd., USA, ²MIT, USA. SOFT OPTICS is an

emergent field in design for light

management where flexibility, weight

reduction, affordability and low embodied

energy in production are desirable.

Applications include thin film, foil and

textile solar concentrators and diffusers

with applications in architectural façade

systems, solar PV optimization and solid

state lighting.