

## NEWS & ANALYSIS 18 | TECH NEWS

Photonics Spectra editors curate the most significant photonics research and technology headlines of the month – and take you deeper inside the news. Featured stories include:

- Carbon nanotube “forest” hides 3-D objects
- Probing microscopy technique produces green solar cells
- Material glows in NIR for two weeks

## 36 | FASTTRACK

Business and Markets

Funding reauthorization will stabilize SBIR programs  
Optical engineering grabs the spotlight in Israel  
Edmund Optics’ founder dies

## 43 | GREENLIGHT

by Marie Freebody, Contributing Editor  
“Fool’s gold” is pretty smart for solar cells

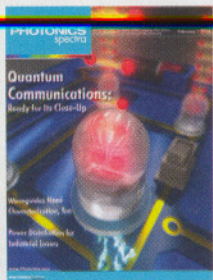


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Watch what you eat – automatically

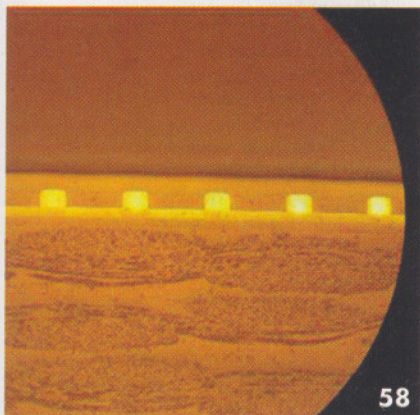


### THE COVER

Featured is Contributing Editor Hank Hogan’s article on quantum communications, which begins on page 44.

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**FEATURES**



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**44 | QUANTUM COMMUNICATION IS READY FOR ITS CLOSE-UP**

by Hank Hogan, Contributing Editor

Poised for deployment, it has some technical issues that must be resolved. Meanwhile, commercial viability is sought for quantum key distribution.

**50 | LASERS EVOLVE TO MEET THE DEMANDS OF OPTICAL COMMUNICATIONS**

by Marie Freebody, Contributing Editor

To keep up with demand, can manufacturers increase laser speeds while simultaneously decreasing component sizes?

**54 | POWER DISTRIBUTION IMPROVES INDUSTRIAL LASER SYSTEMS**

by Dave Proli, Marway Power Solutions

The quality, availability and distribution of electrical power are fundamental to laser performance, longevity and uptime.

**58 | WAVEGUIDES NEED CHARACTERIZATION, TOO**

by Robert Ferguson, National Physical Laboratory, UK

Meticulous attenuation and isolation measurements are crucial to the development of optical printed circuit boards.

**61 | THE COMING MARKET FOR OPTICAL FIBER AND CABLE**

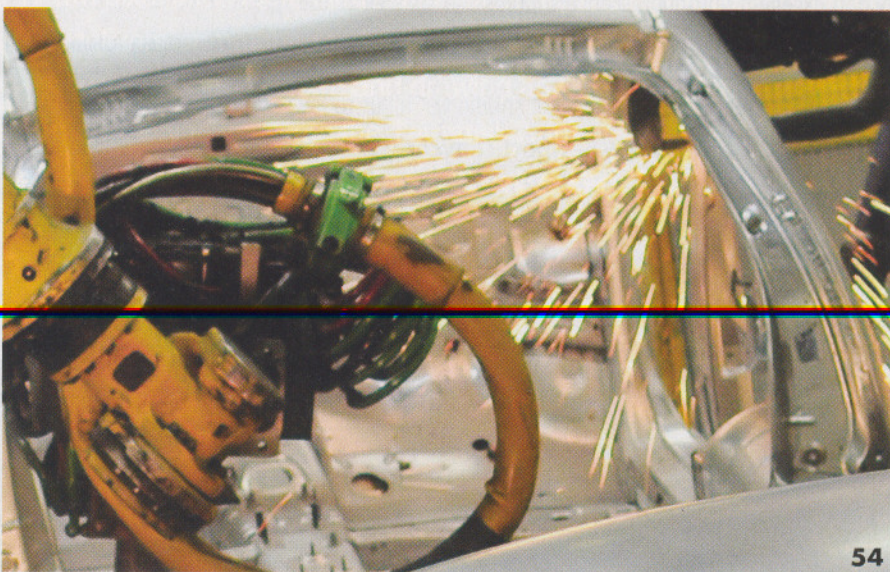
by C. David Chaffee

The author explores the history and growth potential of this sector as the demand for broadband intensifies.



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