



LIGHTWAVE LOGIC™

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Lightwave Logic Initiates Development of an All-Optical Transistor

The Company Has Fabricated its First-ever All-Optical Waveguide Using One of Its Third-order Perkinamine NR Chromophores

NEWARK, Del., March 17, 2011 /PRNewswire/ -- Lightwave Logic, Inc. (OTC Bulletin Board: [LWLG.ob](#) - [News](#)), a technology company focused on the development of a *Next Generation Non-Linear Optical Polymer Materials Platform* for applications in high speed fiber-optic data communications and optical computing, announced that through its collaboration with City University Of New York (CUNY) it has fabricated its first-ever all optical waveguide using one of the company's Third-order **Perkinamine NR™** chromophores. The company made this announcement and discussed the potential applications at the **23rd Annual Roth Capital OC Growth Stock Conference**, yesterday at the Ritz-Carlton Hotel in Dana, Point California. A replay of the presentation can be accessed at the following URL:

<http://www.wsw.com/webcast/roth24/lwlg/>

Jim Marcelli, chief Executive Officer of Lightwave Logic stated, "The development of our Third-order Perkinamine NR™ chromophores is a tremendous scientific achievement in its own right and moves our company into the vanguard of optical polymer science. This is a game-changing material and we are proud of the fact that we have attained this historic milestone 2 years ahead of our own development forecast."



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Vinod Menon, Associate Professor of Physics and Member of the CUNY Photonics Initiative, commented, "The fact that this polymer survives 170 degrees Celsius and still shows the same optical properties makes it an ideal candidate for nonlinear optical devices in planar photonic integrated circuits."

Dave Eaton, Chief Scientific Officer said, "While the CUNY team will be testing the non-linear properties of our material deposited in these newly fabricated waveguides at **Brookhaven National Laboratories** at the end of the month, this is the same material that was recently tested by Professor Biaggio at Lehigh University who reported that it was 100 times stronger than the highest off-resonance small molecule currently known."

"This is the first step toward the development of an all-optical transistor," Dr. Eaton added.

"Powered by Lightwave Logic"

Lightwave Logic, Inc. is a development stage company with ground-breaking electro-optical and Third-order polymer technology that holds significant advantages over conventional copper-based technology. The enormous speed and cost advantages together with the flexibility of form factor will enable new applications and devices that can change the way people live their lives. Please visit the Company's website, www.lightwavelogic.com for more information.

Safe Harbor Statement

The information posted in this release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words "may," "will," "should," "plans," "explores," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. These risks and uncertainties include, but are not limited to, general economic and business conditions, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, shortages in components, production delays due to performance quality issues without sourced components, and various other factors beyond the Company's control.