

PATENTS ISSUED UNDER NSF SUPPORT
September 2008 thru May 2009

Faculty Names	Patent Title	Patent #/Date	Source of Support		
			Primarily MRSEC	Partially MRSEC	Developed In SEFs
M. Bawendi , H. Eisler, V. Klimov, H. Smith, V. Sundar, M. Walsh	Nanocrystal structures	U.S. Patent 7,470,473 Issued Dec. 30, 2008	X		X
G. Anderson, M. Bawendi , H. Mattoussi, J. Mauro, V. Sundar	Inorganic particle conjugates	U.S. Patent 7,470,379 Issued Dec. 30, 2008		X	X
M. Bawendi , Y.T. Chan, J. Zimmer	Microspheres including nanoparticles in the peripheral region	U.S. Patent 7,449,237 Issued Nov. 11, 2008		X	X
R. Cohen , N. Neuraji, M. Rubner , A. Swiston	Permanent anti-fog coatings from molecularly blended hydrophilic polymers	Applied Dec. 2008		X	X
R. Cohen , D. Lee, M. Rubner	Superhydrophilic coatings	Applied Oct. 2008		X	X
C. Anastassiou, G. Dellemann, Y. Fink , S. Jacobs, U. Kolodny, R. Payne, J. Rusk, G. Shapira, M. Shurgalin, B. Temelkuran, D. Torres, T. Wang, O. Weisberg	Photonic crystal fibers and medical systems including photonic crystal fibers	Applied Feb. 2009		X	
J. Bravo-Abad, E. Ippen , M. Soljagic	Ultrafast photodetection in all-silicon chip enabled by two-photon absorption	Applied Dec. 2008		X	
A. Avestruz, J. Cooley, S. Leeb , L. Norford	Fluorescent lamp with integral proximity sensor for building energy management	Applied Dec. 2008		X	
R. Hamam, M. Ibanescu, E. Ippen , J. Joannopoulos , S. Johnson , P. Rakich, E. Reed, M. Soljagic	Efficient terahertz sources by optical rectification in photonic crystals and metamaterials exploiting tailored transverse dispersion relations	U.S. Patent 7,421,171 Issued Sept. 2, 2008		X	
E. Ippen , P.-B. Phua, C.W. Wong	Integrated polarization controllers with Nano-electromechanical dielectric perturbation	U. S. Patent 7,466,878 Issued Dec. 16, 2008		X	
A. Farjadpour, J. Joannopoulos , S. Johnson	Zero-group-velocity modes in chalcogenide holey photonic-crystal fibers	Applied Mar. 2009	X		
Y. D. Chong, J. Joannopoulos , M. Soljagic , Z. Wang	One-way waveguides using gyrotropic photonic crystals	Applied Dec. 2008		X	
P. Fisher, J. Joannopoulos , A. Karalis, A. Kurs, R. Moffat, M. Soljagic	Wireless energy transfer	Applied Nov. 2008		X	