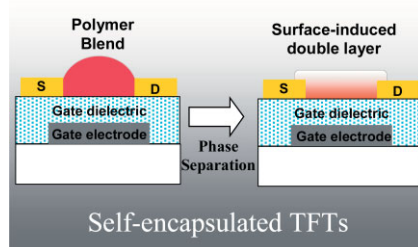


COMMUNICATIONS

Transistors

A. C. Arias,* F. Endicott,
R. A. Street 2900 – 2904

Surface-Induced Self-Encapsulation of Polymer Thin-Film Transistors

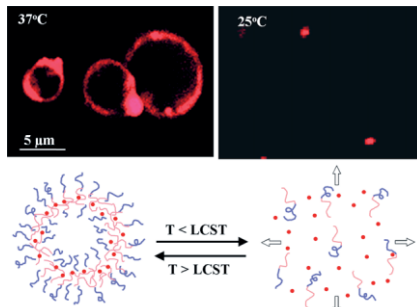


Surface-induced phase separation in polymer blends is used to fabricate self-encapsulated thin-film transistors. The semiconductor material preferentially wets the gate dielectric surface and a self-organized bilayer of two polymers phases occurs spontaneously (see figure). The encapsulant and semiconductor are deposited in one step.

Stimuli-Responsive Materials

S. Qin, Y. Geng, D. E. Discher,*
S. Yang* 2905 – 2909

Temperature-Controlled Assembly and Release from Polymer Vesicles of Poly(ethylene oxide)-*block*-poly(*N*-isopropylacrylamide)

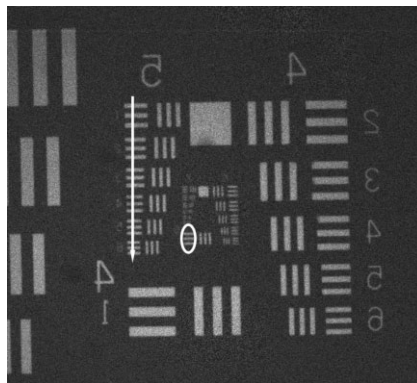


Narrow-dispersity thermoresponsive block copolymers of poly(ethylene oxide)-*block*-poly(*N*-isopropylacrylamide) self-assemble into vesicles at temperatures above 32 °C. The vesicles integrate a hydrophobic fluorescent dye into their membranes and encapsulate the hydrophilic anticancer drug doxorubicin. Temperature-controlled release of the dye through disintegration of the vesicles takes place at temperatures below 32 °C, as shown in the figure.

Data Storage

C. C. Corredor, Z.-L. Huang,
K. D. Belfield* 2910 – 2914

Two-Photon 3D Optical Data Storage via Fluorescence Modulation of an Efficient Fluorene Dye by a Photochromic Diarylethene



A two-photon 3D optical storage system based on a photochromic diarylethene (1,2-bis(2-methylbenzo[*b*]thiophen-3-yl)hexafluorocyclopentene) and a highly efficient two-photon absorbing fluorescent dye (2,7-bis[4-(9,9-didecylfluoren-2-yl)vinyl]phenylbenzothiazole) is demonstrated. The figure shows two-photon fluorescent readout of data recorded by single-photon excitation. The system is suitable for recording data in thick storage media and providing a non-destructive readout method.

CORRECTION

Angle-Dependent Extinction of Anisotropic Silica/Au Core/Shell Colloids Made via Ion Irradiation

By Joan Penninkhof, Christina Graf,
Teun van Dillen, Arjen Vredenberg,
Alfons van Blaaderen, and
Albert Polman*

Advanced Materials **2005**, *17*,
1484–1488.

DOI: 10.1002/adma.200401742

Regarding Figure 5, a mistake has been made in the orientation of the light beam with respect to the orientation of the particles. The text in the paper should read:

“Normalized transmission spectra of this sample are shown in Figure 5a for different angles of the incident light beam with respect to the surface normal. The angle was varied from -45° (spectrum h, light along the ion-beam direction) to $+45^\circ$ (spectrum b, perpendicular to the ion beam) in steps of 15° . We observe that the spectra of the deformed colloids are broader and angle dependent: the maximum in extinction shifts to the infrared for angles more parallel to the ion-beam direction.”

The authors apologize for any inconvenience caused.