A Material World

Images captured during research turned into award-winning art

Bethany Halford

In science, images are meant to convey information. Aesthetics are secondary. But sometimes an image is so striking that it transcends its role as data and transforms into art. To recognize those instances when the view through a high-powered microscope is simply stunning, the folks at the Materials Research Society have a "Science as Art" competition.

This year's fall meeting, held November 26–30 in Boston, was host to the fourth installment of the popular contest. Of the more than 200 scientists who entered images, 48 were displayed during the meeting for conference to vote on. Six winners were selected—three garnering first place and three taking second—took home $500 and $300, respectively. The winning images can be downloaded for free of charge from the MRS website.

First Place

DIRTY DICE

TIMOTHY LEONG, Johns Hopkins University

The tiny dice in this scanning electron micrograph were made using solder-based, surface tension-driven self-assembly. Leong likened the technique to rudimentary micro-origami, as it allows one to pattern 2D structures and then pop them up into 3D. "One of the big perks of this method is that it allows for easy patterning of the side faces of 3D structures, which is normally very difficult to do," Leong says. "To highlight this flexibility, we patterned the pips of dice into the faces before folding them." The result is a collection of gold-coated nickel dice 200 microns wide. The fuzziness of the dice is an accidental result arising from storing the dice in ethanol within polystyrene dishes. Leong notes, "Apparently, the polystyrene slowly dissolved and then formed a partial crust on the dice."