

Time Out

New York

1,628
EVENTS INSIDE!
INCLUDING a free peep show in Central Park

COLLECTIBLE
ART COVER
Whitney Biennial star
Marilyn Minter
celebrated this just for
TONY. Read her success
story on page 48.

Wanna be famous?

And rich? Or just keep your indie cred? The city's top artists define success—and help you get a taste.

JULY 24-30, 2008 ISSUE 669
\$3.99 TIMEOUTNEWYORK.COM

Mystery science eater

Experimental chefs often look to industrial technologies for new ideas in haute cooking. *TONY* examines the original mass-market uses of some of molecular gastronomy's latest tricks. By **Daniel Gritzer**

THE FINE-DINING CREATION

THE INDUSTRIAL VERSION

Sodium alginate or pectin and calcium



Here's the cheesecake.

At **wd-50** (50 Clinton St between Rivington and Stanton Sts, 212-477-2900), chef-owner Wylie Dufresne serves "strawberry cheesecake," a pellet of soft cream cheese encased in a strawberry membrane. The dish takes advantage of a gelling process that occurs when calcium (in the cream cheese) interacts with fruit- or algae-derived gelling agents, in this case, pectin in the strawberry juice.

While the technique first appeared in fine-dining kitchens when famed Spanish chef Ferran Adrià debuted his olive oil "caviar" in 2003, "spherification" (Adrià's term) has actually been in use much longer. Just take a look at your martini's pimento-stuffed olive. Food-industry researchers, in their ongoing attempt to increase production efficiency, found that a gel made from pimento puree could be manufactured in a uniform size, making the mechanical stuffing process easier.



Methylcellulose



Of all the various agents (technically known as hydrocolloids) that chefs use to create gels and foams, methylcellulose is one of the more versatile. Derived from cellulose, the primary building block of plant matter, it gels when hot and melts when cold (making hot ice cream possible), and whips up into a shaving-cream-like foam. At **Tailor** (525 Broome St between Sullivan and Thompson Sts, 212-334-5182), chef-owner Sam Mason tops coriander-fried sweetbreads with white beer foam.



"A lot of companies use [methylcellulose] as a hot gelling agent, like in pie fillings, since the contents won't leak out when the pie bakes," says Mason. It's also an effective laxative, a sexual lubricant, the main ingredient in the fiber supplement Citrucel, the special-effects slime in films like *Ghostbusters* and another kind of fake slime in pornos.

Transglutaminase



Chefs have taken to calling this enzyme "meat glue," which conjures images of Frankenstein-like creations. And to some extent, that's accurate: Transglutaminase bonds amino acids together, fusing the proteins between pieces of meat. Executive chef Craig Hopson, at **One if by Land, Two if by Sea** (17 Barrow St between Seventh Ave South and W 4th St, 212-255-8649), debones a delicate red mullet, then reattaches the fillets before serving the whole thing steamed with crushed cherry tomatoes and peach puree.

Though it sounds like a lab-hatched substance, transglutaminase is in fact a naturally occurring enzyme that is central to the blood-clotting process. The implications of its ability to cross-link proteins in the body weren't lost on food companies, who have long used it to bind together purees and scraps of meat in foods like reconstructed steaks, chicken nuggets and imitation crab sticks.



Vacuums



Sous vide (low-temperature cooking of vacuum-sealed foods) is probably the best-known high-tech cooking method, but **L'École** (462 Broadway at Grand St, 212-219-3300) uses vacuum pressure a different way: to infuse the cachaça in its strawberry caipirinha. "With a normal infusion, you have to wait a long time to get the flavor you want, but the freshness is lost," explains French Culinary Institute director of culinary technology Dave Arnold. The vacuum method is much quicker: All the air is sucked out of the fruit, replacing it with the alcohol; a second whirl pulls some of the alcohol out of the fruit, infusing the cachaça with the flavor of strawberry.



"Big companies use [vacuum] techniques primarily for economic reasons, like shipping and preservation," says Arnold. In addition to these applications, for decades, manufacturers have been using a technique similar to Arnold's to process rice: Employing a vacuum, they remove air from the rice kernels, allowing water to penetrate them more fully. This results in improved texture, nutrition, and ease of processing.

Peristaltic pumps



Commercial food products aren't the only sources of inspiration for chefs. At **Jean Georges** (1 Central Park West at Columbus Circle, 212-299-3900), executive pastry chef Johnny Iuzzini uses medical equipment to make rhubarb noodles, which he serves with palm seeds, lightly gelled yogurt and a hibiscus-rose broth. The peristaltic pump, which he purchased on eBay for \$300, massages silicone tubing with rollers, drawing a solution of rhubarb juice, vanilla and a gelling agent up through the hose, which then passes through an ice bath and sets the mixture.

Peristalsis—the muscular contractions that pass food through our digestive system—is the basic mechanism behind the pump. This device is used during open-heart surgery, which continues the heart's work by diverting blood flow. In industrial applications, the pump is used to move harmful liquids like sewage with minimal contamination.

