

Painless Particles®

Global Newsletter
Volume 25, # 1, May 2012



A DIVISION OF POLYSCIENCES, INC.

B E A D S ● A B O V E T H E R E S T™

● In This Issue

- And Youuu... (Star)Light Up My Life..... 1
- We Can See Clearly Now 1
- The Latex Course™ 2012 1
- On The Road Again! 1
- Accessorize Geek Chic to the
Next Level 2
- Ask "The Particle Doctor®" 3
- The New Bangs Beads is Here! 3

The Latex Course™ 2012

The Latex Course™ 2012 will be held at **The Ritz-Carlton** in **Chicago, Illinois** from **September 16 – 18, 2012**. Program details have been finalized and registration is now open!

For the full brochure and registration information, visit our website (www.bangslabs.com/service/latex_course) and make plans to join us in Chicago!

And Youuu... (Star)Light Up My Life... Introducing StarLight™ Calibration Slides

As you may have gathered, there is a special something in our new product line-up that has instilled a song in our hearts and stars in our eyes. And little wonder. Our new StarLight™ Calibration Slides feature vibrant ~6µm fluorescent microspheres that not only delight the senses, but have also proven to be pretty useful for basic imaging checks and calibrations. We offer four standard versions that are appropriate for use with common microscope filter sets: Glacial Blue (360, 450), Dragon Green (480, 520), Envy Green (525, 565), Flash Red (660, 690), and are available individually or as the full 4-slide collection.

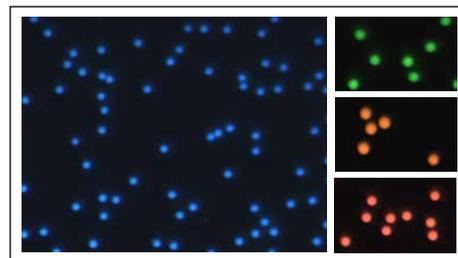


Figure 1: Images of StarLight™ Calibration Slides. The left image is Glacial Blue. The right images are (from top to bottom) Dragon Green, Envy Green and Flash Red.

So give them a whirl – we have every confidence that they'll enamor you, too.

<u>Catalog Code</u>	<u>Product Description</u>	<u>Quantity</u>
SL1GB	StarLight™ Calibration Slide – Glacial Blue	1 slide
SL1DG	StarLight™ Calibration Slide – Dragon Green	1 slide
SL1EG	StarLight™ Calibration Slide – Envy Green	1 slide
SL1FR	StarLight™ Calibration Slide – Flash Red	1 slide
SL04K	StarLight™ Collection – Slide 4-Pack (1 of each color)	4 slides

On The Road Again!



CYTO 2012
June 23 – 27, 2012
Leipzig, Germany
Booth 315
www.cytoconference.org



**American Association for
Clinical Chemistry (AACC)**
July 17 – 19, 2012
Los Angeles, CA
OEM Section, Booth 346
www.aacc.org

We Can See Clearly Now... Microspheres for Turbidimetric Assays

The assay of clinically-relevant analytes in the point-of-care setting is important for elucidating critical medical conditions such as cardiovascular disease, thromboembolic disease, bacterial infections, and active inflammatory conditions. Turbidimetric assays are able to contribute to the rapid and quantitative assessment of the patient's condition, and the development of particle-enhanced versions has been known to increase sensitivities by ten- to one hundred-fold. Particle-enhanced turbidimetric assays are thus highly informative, and have often allowed the earliest and most appropriate interventions.

(continued on next page)

Accessorize Geek Chic to the Next Level

...with our new accessory reagents and companion products!

At Bangs Laboratories, we are nothing if not slaves to fashion. Oh yes, you know the kind of high-IQ style we're talking about: gloves, glasses, lab coats, promotional T-shirts from reagent suppliers.... Basically, good foundation pieces with all of the right accessories. And having the right accessories is *so* important, isn't it?

Well, we certainly think so, and we would love to help you take your accessorizing to the next level with our expanded catalog of accessory products that bring added convenience, efficiency, and perhaps even a bit of style (er... *extra* style, that is) to your laboratory. We now offer coupling reagents, surfactants, and of course buffers for your bead coating and reagent development efforts.

It's true that you look good now, but just think of the fine figure you'll cut with a bottle of beautifully-coated and well-dispersed beads in your hands... Sigh....

Catalog Code

AA014
AA016
AA018

Surfactants

Triton® X-100 Nonionic Surfactant
Tween® 20 Nonionic Surfactant
Sodium Dodecyl Sulfate Anionic Surfactant

Catalog Code

AA010
AA012

Coupling Reagents

DEPC-Carbodiimide (EDAC)
Glutaraldehyde, EM Grade, 25%

Catalog Code

BUFF1
BUFF2
BUFF3
BUFF4
BUFF5
BUFF6
SOLN1

Buffers and Solutions

Bangs Bead Coupling Buffer, pH 4.5
Bangs Bead Coupling Buffer, pH 6.0
Bangs Bead Coupling Buffer, pH 7.4
Bangs Bead Coupling Buffer, pH 9.0
Bangs Bead Storage Buffer, pH 7.4
Bangs Bead Storage Buffer, pH 8.5
Bangs Bead Solution



We Can See Clearly Now....

(continued from Page 1)

Bangs Laboratories offers functionalized and plain polystyrene ("latex") microspheres in the submicron diameters (0.05µm – 0.5µm) that are widely used for turbidimetric reagent development. The different surfaces support both covalent and adsorption protocols, allowing for the highly tailored coatings that are important to agglutination reactions. Additionally, our synthesis capabilities permit the manufacture of reproducible lots at the scales needed by OEM customers.

We invite you to contact us to discuss the selection of base material for your turbidimetric assay, or for technical support during the reagent and assay development process. Our many standard offerings may also be browsed through our online Product Selection Guide. Take a look—we think you'll like what you see!



Cartoon reprinted with special permission from Sidney Harris <SHarris777@aol.com> and www.sciencecartoonsplus.com.

Ask “The Particle Doctor[®]”

Q : I just began using your SureCount™ standards, and have wondered about room temperature storage. Is this OK?

A : Seriously? Was it our style compliments that emboldened you...? This evidently calls for our signature 2-part response:

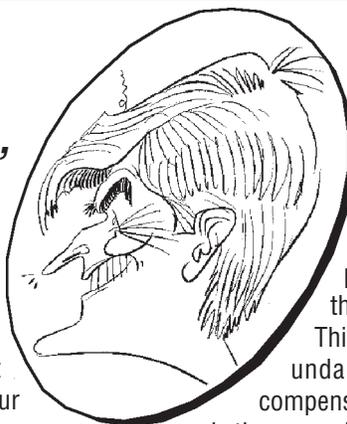
Company Line (*which protects us legally, and is an occasion for which we get to dust off our good vocabulary*): Though brief excursions from refrigerated temperatures are expected, we intend for the standards to be stored at 4-8°C to deter the growth of opportunistic microorganisms within the suspensions.

Pragmatic Response (*a.k.a. “The Skinny”*): Regarding room temperature storage, one could view that there would be minimal risk for unopened bottles whose contents contain sodium azide (as these do). However, as bottles are opened repeatedly over time, there is a greater risk for contaminating species to be introduced into the suspensions. Sodium azide is a bacteriostatic agent that is effective against gram negative bacteria; it is not a biocide, and doesn't protect against yeast / fungi. So it really depends on the cleanliness of the lab area (*dust those instruments!*), the care that is being taken when dispensing the reagent (*how long has that pipet been sitting there...?*), and your investing style (*the amount of risk you can tolerate*). However, we still ask that you store them refrigerated. We love talking to our customers, but we would rather it be for happy things than a discussion of how you left a bottle on the benchtop over the summer and now there's stuff growing in it. (*Which, incidentally, will wreak havoc with your counts!! Don't do it!!*)

Q : I need fluorescent microspheres that are highly stable. What do you suggest?

A : Given that stability is...um...relative, we shall now subject you to a discourse on fluorescent microsphere manufacturing, storage, and handling. (*Nothing is ever simple with us, is it?*)

Our **internal dyeing (swelling / entrapment) method** enables us to load a significant amount of dye into polymer beads, which typically results in very bright fluorescence, and leaves the bead surface available for reactions / coating. We can tailor intensities (as with our **Dragon Green** and **Flash Red Intensity Standard sets**), and we do offer some coated varieties (e.g. streptavidin). As internally dyed beads, they also offer excellent



photostability; the polymer matrix confers some protection to the fluorophore, and, additionally, there are many, many fluorescent molecules present. This latter feature is significant to photostability as undamaged fluorophore molecules may be able to compensate (up to a point) if others are photo-degraded. This is the case with self-recovery of photobleaching – specifically, low MW dyes are able to diffuse within the polymer matrix, allowing intact fluorophore to diffuse into photobleached areas, leading to a “recovery” of fluorescence. This mechanism is probably also what allows prolonged or repeated imaging of fluorescent microspheres without an appreciable loss of fluorescence (though photobleaching will depend on many variables, including power of light source, exposure time, number of exposures, etc.). We view our standard catalog items as good general-purpose beads as they are amenable to use in many different imaging applications, such as microscopy, fluid tracing, phagocytosis, etc.

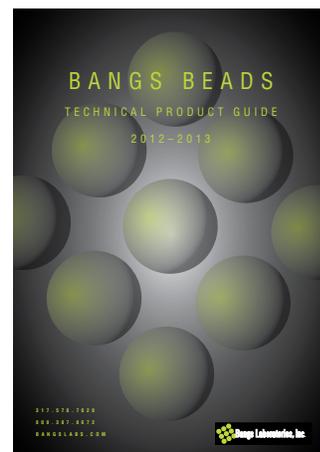
All of our fluorescent beads are provided in specific storage solutions / buffers and opaque bottles, ensuring that the fluorescence remains stable until use. After that, it's up to you!



The New *Bangs Beads* is Here!

At long last, Bangs has updated our product catalog for you, our happy readers! Contained in the pages of ***Bangs Beads: Technical Product Guide***, not only will you find all of our products and ordering information, but also a wealth of **technical information to guide you** in your microsphere-related pursuits. The catalog is broken into four sections: **Information, General Products, Magnetic Bioseparations, and Standards**. The first section, *Information*, provides basic know-how including microsphere selection and handling, while the other three sections provide more application-specific guidance.

We are thrilled to bring you this new catalog. So let us know what you think and, as always, if you have questions, just let us know!





"Man's mind, once stretched by a new idea, never regains its original dimensions." – Oliver Wendell Holmes

Painless Particles

● **In This Issue**

And Youuu... (Star)Light Up My Life.....	1
We Can See Clearly Now	1
The Latex Course™ 2012	1
On The Road Again!	1
Accessorize Geek Chic to the Next Level.....	2
Ask “ <i>The Particle Doctor</i> ®”	3
The New <i>Bangs Beads</i> is Here!	3

