

# Painless Particles®

Global Newsletter  
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A DIVISION OF POLYSCIENCES, INC.

**B E A D S ● A B O V E T H E R E S T™**

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## Bargain Beads

See our online list of regular Bangs beads for special prices on end-of-run, "close-outs," or left-over lots. Many sizes, colors and surface modifications are available.

## Bangs Sponsors CD!

*Bangs Laboratories is proud to announce our Diamond Sponsorship of the "History of Cytometry" CD being produced by Purdue University's Cytometry Laboratories. This CD is the latest addition to their Cytometry CD series and focuses on the history of the field of cytometry, from its inception to the latest innovations.*

*As our roots at Bangs trace back to the Flow Cytometry Standards Corporation, which was the first organization established expressly for the purpose of furthering quality assurance and standardization in flow cytometry, we are delighted to continue, honor and further this tradition.*

*To request your free copy of this CD, contact the Bangs' Customer Service Department ([info@bangslabs.com](mailto:info@bangslabs.com)).*

## You asked...we answered: Our New Catalog Has Arrived!

As the season turns colder and the gridiron once again fills with avid spectators and players, the start of the new football season can only mean one thing - the **Book of Beads** is here! After overwhelming requests from you - our wonderful customers - we are proud to introduce the **Book of Beads** - our new comprehensive catalog complete with all of our product lines, as well as features, handy tidbits and general information to make your bead experience that much easier!

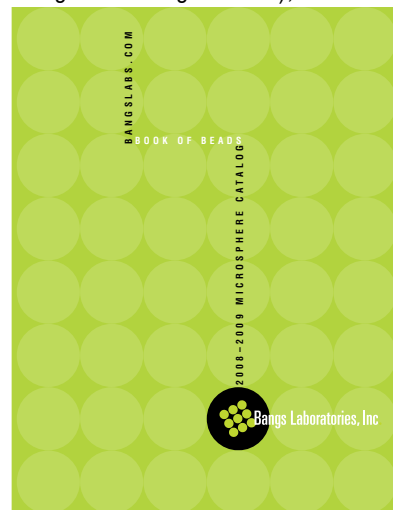
The first thing you will notice is that our catalog is broken into sections based on microsphere type. Know what you're looking for? Then you can head straight to that section. What could be easier? If you're not quite as sure, we've got you covered too! Each product section has an educational introduction, complete with suggested uses, designed to help you decipher for what types of tests and assays each particular microsphere has been created - and to get your creative juices flowing!

In addition to product specific information, we have also designed the catalog as a resource for you. You will find general information on microspheres - from characteristics to handling practices - and also where to go for *additional* information. Are you simply dying to find out more about a particular product or protocol? The catalog will cross-reference the applicable TechNote or Product Data Sheet you need. We have compiled a wealth of information for your use - and we'll even tell you where it is!

Is Flow Cytometry your thing? It is ours. In fact, we've devoted an entire section to it. Not only do we tell you about our flow products (as all good catalogs should), but we've even outlined a comprehensive quality control program for use in your lab. Just see the Quality Control chart on page 27. It details everything you need to keep your lab running smoothly - and producing high quality, reliable results.

To request your new catalog, simply contact our Customer Service department at [info@bangslabs.com](mailto:info@bangslabs.com). We are proud to introduce our **Book of Beads** and look forward to continuing to serve you.

Oh, and I bet you were wondering what the new football season had to do with our catalog, weren't you? They were both highly anticipated and are a lot of fun. Enjoy!



## Here We Grow Again! Introducing BioMag®Plus Concanavalin A

Bead- and column-based separation methods rely heavily on the speed and ease of affinity binding systems. Ligands such as streptavidin, antibodies and lectins are used both to capture specifically-tagged targets and for the isolation of cells and biomolecules that naturally express the ligand binding partner. The unique saccharide-binding properties of plant lectins, such as Concanavalin A (Con A), have made them useful for the labeling and isolation of glycan-presenting cells and glycoproteins in serum and cell lysate. Lectins have additionally been used in cell adhesion studies, to effect lymphocyte activation, and to explore carbohydrate-based therapeutics.

Our new Con A-coated BioMag®Plus microparticles provide a convenient means for isolation of mannosyl- and glucosyl-containing glycoproteins and polysaccharides from serum or cell lysate, or for investigating other lectin / glycan-mediated processes. The BioMag®Plus magnetic particle format provides high surface area, and permits easy and efficient separations.

<u>Catalog Code</u>	<u>Description</u>
<b>BP531</b>	<b>BioMag®Plus Concanavalin A</b>

BioMag®Plus Concanavalin A



**Binding and elution of apo-transferrin using BioMag®Plus Con A magnetic particles.** Sample eluates (lanes 2-6) from 1mL, 0.5mL, 0.25mL, 0.125mL and 0.05mL of BioMag®Plus Con A particles, respectively, are compared with aliquots of 0.3 mg/mL apo-transferrin stock (lanes 7-10) from 5µL, 10µL, 20µL and 30µL.



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

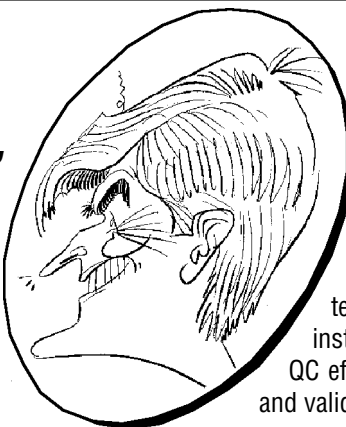


### Mail Bonding

(Subscribers "do the 'write' thing"!)

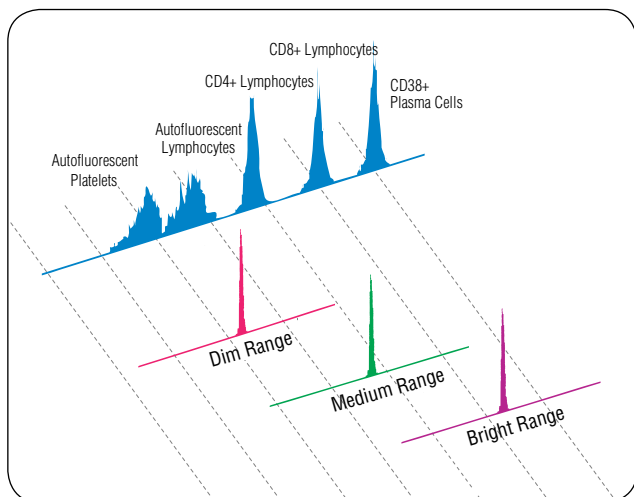
- ❖ Thank you very much for your prompt reply. The information that you've supplied will be very useful. A.O., CA
- ❖ I just recently placed an order for some Protein A microbeads and received them a couple of days later. I could not have asked for better service. It has been a pleasure dealing with your company. Thanks so much for all of your help and the info that I have received. C.N., TX
- ❖ Thanks for the speedy response (your customer service team is fantastic, by the way!!) A.L., CA

## Ask "The Particle Doctor<sup>®</sup>"



**Q** : We require Quantum™ FITC calibration beads for the quantitation of FITC fluorescence intensity in MESF units. It seems 3 types of Quantum FITC beads (low, medium, high) are available. I am confused in choosing the right one for my calibration work. Can you help?

**A** : The different levels of kits are intended to span the intensity range of common cellular analyses. Low level kits are commonly used for cells with low expression levels, or for small cells that will be dimmer due to their size. Examples include telomere length determination and some cell surface markers (e.g. CD34). Medium level kits are used for many types of analyses, and nicely span the range of typical cell samples. Common analyses include those for many surface markers, including CD4 / CD8. High level kits are often used for cells with very high expression or high autofluorescence, e.g. analysis of tumor cells.



If you're still wondering which is best suited for your assay, you might start with the mid-level kit, which overlaps areas of the low and high kits.

Catalog Code	Description
824	Quantum™ FITC (low level)
824p	Quantum™ FITC (low level) premixed
825	Quantum™ FITC (high level)
825p	Quantum™ FITC (high level) premixed
826	Quantum™ FITC (medium level)
826p	Quantum™ FITC (medium level) premixed

**Q** : I'm building a particle sizer, and need to obtain calibration standards. What products are available?

**A** : We understand that accurate particle size and distribution analysis is critical to particle-based technologies in industry and research. The particle sizing instruments used to support research, manufacturing and QC efforts in these sectors must be rigorously calibrated and validated to ensure the integrity of results.

We offer a full range of polystyrene-based NIST-traceable particle size standards that are suitable for calibrating and validating sizing instruments. With diameters spanning a range of 40nm to 175µm, we have standards that are suitable for a broad range of sizing methodologies. The standards are supplied as 1% solids aqueous suspensions in dropper bottles.

We also supply a wide range of diameters within our standard catalog if the higher level of traceability isn't required for every run. These products include polymer (25nm - 20µm) and silica (150nm-5µm) spheres supplied as 10% solids suspension. Some dry microsphere products are also available.

For specific sizes and ordering information, see our website or catalog. If you should need further clarification, our friendly Customer Service Representatives are standing by (well, actually they're probably sitting) and ready to help!

Catalog Code	Description
NT02N - NT40N	NIST Traceable Size Standards, size ranges from 40nm to 175µm
PS02N - PS08N	Polystyrene Plain (Hydrophobic) Microspheres, size ranges from 25nm to 20µm
SS02N - SS06N	Silica Plain (Hydrophilic) Microspheres, size ranges from 150nm to 5µm

## On the Road Again!

❖ **CCS**  
 October 7-9, 2007  
 Washington, D.C.  
 Booth 212  
[www.cytometry.org](http://www.cytometry.org)

**New!**  
Check out our new  
**BioMag® Plus Con A.**  
Details inside....

**"Nobody in football should be called a genius. A genius is a guy like Norman Einstein." – Joe Thiesman**

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