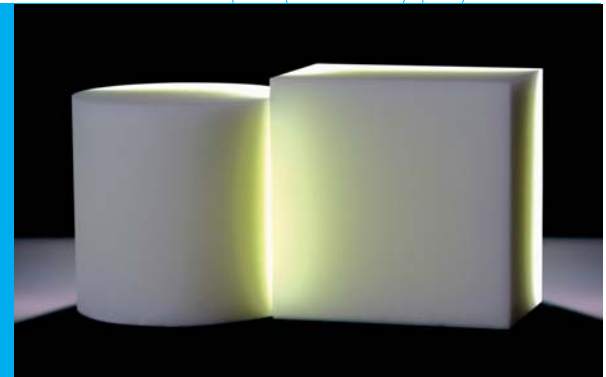


## OPTICAL PHANTOMS

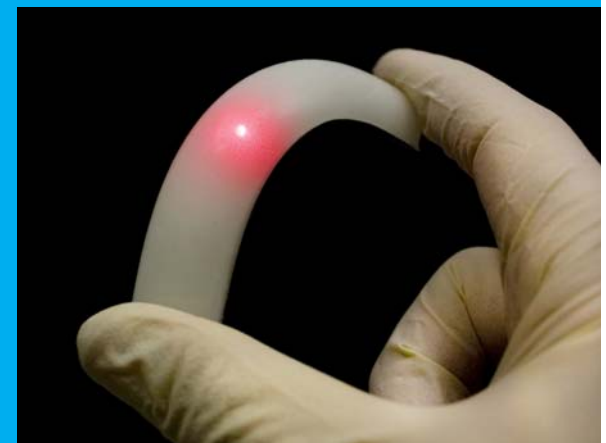
Solid phantoms based on optical quality polymers are the ideal medium for systems calibration and applications development. INO's team of physicists, biochemist, chemists and engineers have simulated a wide variety of tissues by building phantoms with VIS-NIR absorbing dyes and TiO<sub>2</sub> scatterers.

Biomimic™ optical phantoms are available either in soft (35 - 40 A) or hard (84 D) version. Our polyurethane phantoms offer long term durability and reproducible optical properties for a cost-effective alternative solution to liquid media.

Let INO's team customize a phantom to your needs, be it for calibration, referencing, comparison and/or R&D. Our success in developing standardized polyurethane phantoms can help you to establish the accuracy and reproducibility of instruments under development or compare them to systems already used in hospitals, laboratories, clinics or research centers.

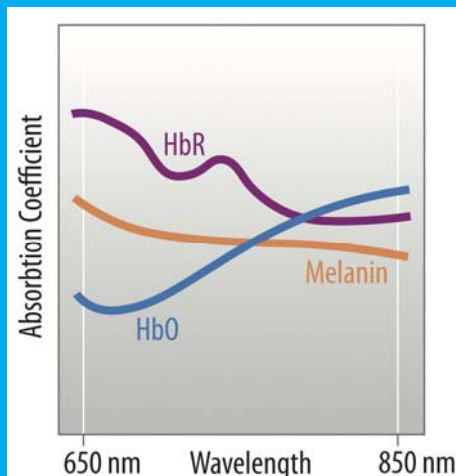


Hard Biomimic phantom (shore of 84 D)



Soft Biomimic phantom (shore of 35-40 A)

## ABSORPTION COEFFICIENT

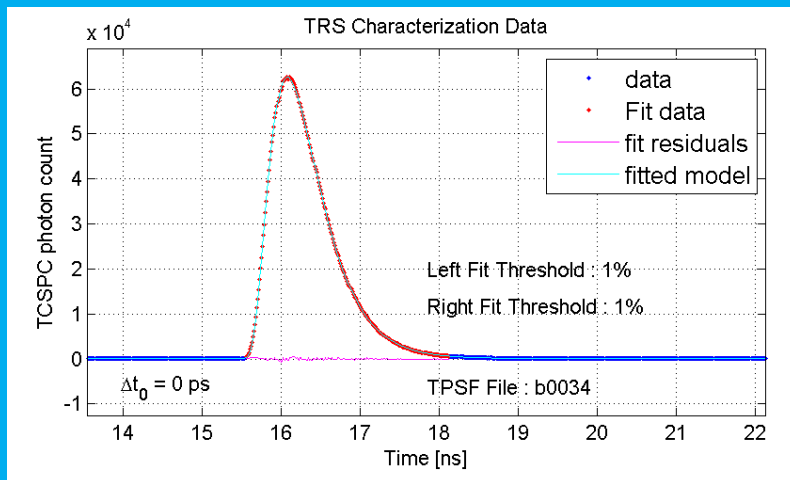


Optical tissue phantoms are used to mimic the optical properties of tissues. Our phantoms can mimic both the flat  $\mu_a$  response of the bulk tissue and also the oxy/deoxy-hemoglobin response over a continuous broad region of the spectrum.

# BIOMIMIC OPTICAL PHANTOMS

## CHARACTERIZATION REPORT

Characterization date : 2009-03-08	Nominal optical properties
Comment :	$\mu_{a0}$ : 0.1 cm <sup>-1</sup>
Analysis wavelength : 690 nm	$\mu_{s'0}$ : 14 cm <sup>-1</sup>
Sample Thickness : 2 cm	Fit results
Time Scale : 50 ns	$\mu_a$ : 0.1cm <sup>-1</sup>
	$\mu_{s'}$ : 13.9cm <sup>-1</sup>



BioMimic phantoms are individually characterized using state-of-the-art, time-resolved transmittance technique. A sample of each phantom is kept for further referencing.

COMM-110002

## BIOPHOTONICS AT INO

INO is a world-class R&D center specializing in optics and photonics with over a decade of success in developing innovative biophotonics solutions. INO harnesses the full power of existing technologies and develops new ones where necessary to provide its clients with unique solutions to their problems, from concept to short-run production.

INO has successfully overcome the highly scattering nature of biological media, as evidenced by projects such as a near-infrared imaging system for optical mammography. Our biophotonics program has grown from this solid base in diffusion techniques to encompass other biospectroscopy techniques such as fluorescence and polarization.