



# Versatile tools for the study of protein stability and interactions

Date: 14-21 April 2016

Data provided by Isothermal Titration Calorimetry (ITC) and Differential Scanning Calorimetry (DSC) enables scientists to directly and quantitatively characterise biomolecular stability and interactions in solution without the need for extrinsic or intrinsic fluorescence probes. Furthermore, the lack of spectroscopic readings means that the samples do not have to be optically clear.

Join us at our presentation and workshop to discover, through illustrated examples, the advantages of ITC and DSC compared to other binding and thermal stability assays. The latest micro calorimetry solutions and technology will be discussed including the new PEAQ ITC system. Talks will be followed by live demonstrations and training with the opportunity for you to discuss your analysis requirements.

## Isothermal and Differential Scanning Calorimetry

### Presentation and live Demonstrations:

**Talk: 9.30am - 11.00am**

An overview of the principles, capabilities and applications of these techniques will be presented including what's new in ITC.

**Workshop: 11.00am - 12.30noon**

The Malvern MicroCal PEAQ ITC will be demonstrated following each presentation. Users will benefit from advanced training and applications assistance.

**This seminar and workshop is an excellent opportunity to meet application specialist Dr Peter Gimeson from Malvern Instruments**

### Venues:

Thu 14 & Fri 15 April	Sydney
Mon 18 & Tue 19 April	Melbourne
Thu 21 April	Brisbane

Please indicate your preferred session during registration.

**Who should attend:** Scientists, researchers and students who wish to further their knowledge of the latest micro-calorimetry solutions and technology. This workshop will be particularly useful to users of these instruments who will benefit from discussing their applications during the demonstrations.

### Registration:

Participation is free of charge however **it is essential to register**. You can register by completing the [registration form](#) on our web site or by sending us an email with your details to [enquiries@atascientific.com.au](mailto:enquiries@atascientific.com.au). **RSVP by 14 April 2016.**

FREE  
WORKSHOP

Register online or email us today

[www.atascientific.com.au](http://www.atascientific.com.au)





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## Isothermal Scanning Calorimetry

### New MicroCal PEAQ-ITC

The new MicroCal PEAQ-ITC is a highly sensitive, low volume isothermal titration calorimeter for the label-free in solution study of biomolecular interactions. Binding affinity (KD), stoichiometry (n), enthalpy ( $\Delta H$ ), and entropy ( $\Delta S$ ) is calculated in a single experiment for weak to high affinity binders, using as little as 10 $\mu$ g of sample.

Built upon the long-established MicroCal ITC technology this new-generation ITC from Malvern instruments incorporates all new data analysis software to ensure intuitive operation. Options for walk-away automation offer quicker screening, faster hit validation and greater laboratory efficiency.



## Differential Scanning Calorimetry

### MicroCal DSC

MicroCal DSC microcalorimeters are powerful analytical tools for characterising the stability of proteins and other biomolecules, requiring minimal assay development, no labelling or immobilisation. The automation and high sensitivity afforded by MicroCal VP-Capillary DSC systems permits screening of large numbers of samples at low concentrations minimising the consumption of valuable samples with little hands-on effort.

Typical applications include determining protein stability and the thermodynamics of unfolding, antibody domain structure determination, characterisation of membranes and lipids, and the measurement of ultra-tight molecular interactions.

For more details please contact us.



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