

# Isothermal Titration Calorimetry – Improvements to facilitate your lab life

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Isothermal Titration Calorimetry (ITC) has become gold standard in life science research. Due to immense improvements in hardware and software ITC got much more versatile. Starting with the determination of binding constants and protein ligand interactions ITC meanwhile became a basic method for the thermodynamic characterization of interactions between all types of macromolecules, structure analysis in biophysics, it is indispensable in drug design and convenient in enzyme kinetics evaluations. In addition it is widely used in chemistry to determine critical micelle concentrations and complexation chemistry. Besides electronics other hardware improvements enabled automation, reduced sample requirement and the use of organic solvents.

With the second generation of the Affinity ITC TA Instruments now enhanced more feature to get the measurements done with increased sensitivity and velocity. Due to smaller volumes and higher sensitivity most titrations take less than 1h to be run in common mode, i.e. incremental injections, even faster with continuous titration. This talk gives insight into new features in hard- and software that makes your life much easier, faster experiments and higher sample throughput.