

TINFE

ILLUMINATING SOLUTIONS

About us

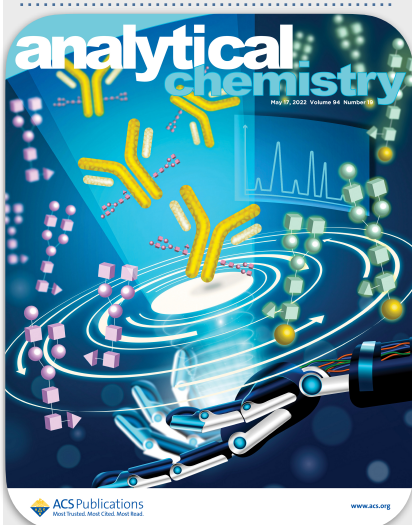
TINFE is revolutionising high-throughput screening using fluorescence spectroscopy. An innovative start-up team backed by Nuqleus deep-tech start-up builder and ZICER tech-transfer accelerator.

Meet the team



Independent research group leaders with 50 scientific publications and 1500 citations

Traction

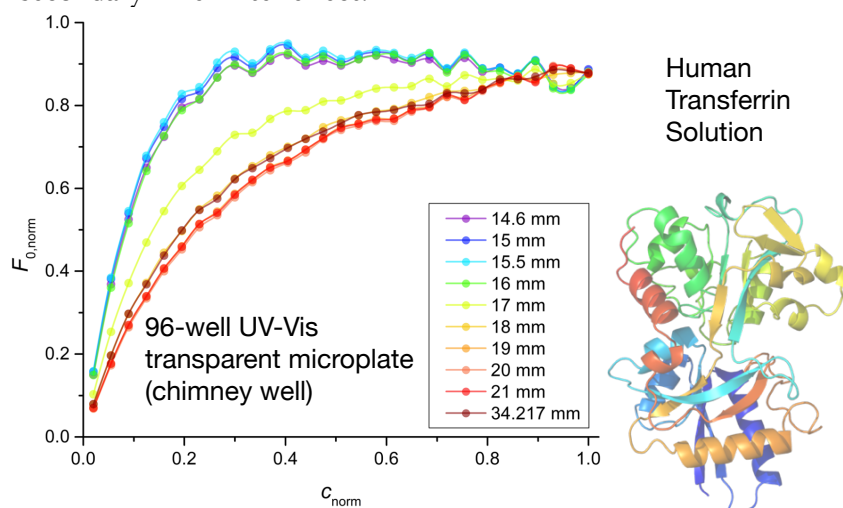


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Non-linearity in fluorescence

Fluorescent spectroscopy is one of most used methods in high-throughput screening for activity, toxicity, and metabolism in clinical applications. It has further applications in drug development, food safety, biochemistry, molecular biology, chemistry, and nanotechnology. Major cause of non-linearity, a big obstacle in fluorescent spectroscopy, is due to inner-filter effects (IFE). Loss of intensity due to absorption of the excitation light is called the primary inner filter effect. The primary inner filter effect is unavoidable, as a certain amount of light needs to be absorbed for fluorescence to occur, but is increased with sample concentration. The emitted light can also get absorbed on its way to the detector, resulting in the secondary inner filter effect.



Current solutions

TINFE Software:

- Automatic processing of fluorescent data
- Compatible with most modern instruments
- Demo available on request

Calibration Kit:

- Precise calibration/validation samples.
- Ensures reliable and repeatable results.

Hardware Add-on:

- Enhances older machines with modern fluorescence correction capabilities

Why TINFE?

Efficiency: Easier sample preparation and faster turnaround times

Accuracy: Enhanced accuracy in fluorescence measurements, reducing errors and re-testing

Innovation: Cutting-edge technology compatible with most fluorescence spectroscopy instruments

Join us in illuminating the future of fluorescence spectroscopy with TINFE!

Lets get in touch!

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Making it linear

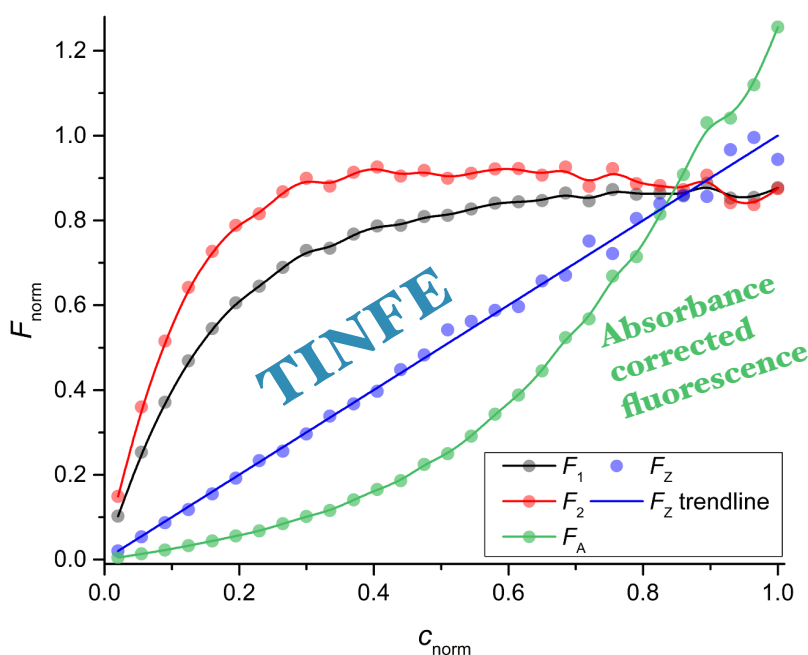
There are several ways how we used to combat IFE in microplate readers. This includes avoiding IFE by using dilute solutions, using absorbance corrected fluorescence, or using cell shift method. First method needs more pipetting and user time, while second uses transparent-bottom microplates and two different modes of signal acquisition. Cell-shift method is only appropriate for a cuvette operation.

TINFE solution

Measure twice, analyse once

TINFE offers advanced solutions to overcome IFE, ensuring precise and reliable results in fluorescence spectroscopy. It eliminates IFE with only two fluorescent measurements with minimal change in parameters. Key benefits:

- Extends the linear response concentration range by tenfold
- Allows direct measurements in raw samples
- Provides on-the-fly correction for high-throughput analysis
- Increases sample utilisation efficiency by up to 30%.
- Enhances accuracy in concentration measurement.
- Reduces interference-related re-testing.
- Streamlines operational processes and optimises workforce allocation.



Explore more about TINFE, our innovative solutions, and case studies at [TINFE Website](#).