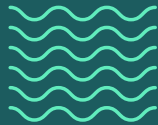


Developing an advanced colloid charge sensor



Expertise and domain knowledge

- Industrial
- Fluid mechanics
- Sensor design
- Manufacture
- Cost reduction



Our client asked:

Is it possible to design, build and test a robust industrial colloid sensor suitable for in-line sensing in a harsh chemical environment?

The project story:

The client ruled out conventional electrochemistry and optical methods. Key considerations for this challenge included ensuring that suspended solids are coagulated and filtered which is a time-consuming and costly task and comes with steep legislative penalties if the waste is not treated correctly.

Zeta measurements are critical to ensure the correct dosing of coagulant and flocculant. We identified several physical properties of fluids which were close to zeta potential and a preferred method for probing the physical properties.

Our team transferred to the client a sensing system that utilises a solid-state sensor with no moving parts – we took it from lab-based demo to a rugged, industrialised sensing system.

Contact us

info@sagentiainnovation.com

+44 1223 875200

[sagentiainnovation.com](https://www.sagentiainnovation.com)

Results: deliverables and outcomes

- We delivered a sensor design, built it, and tested it in field conditions - test results show that the solution has a high sensing accuracy and a long sensor lifetime
- Our client can accurately dose coagulation chemicals and ensure efficient treatment in line with legislation and guidelines
- Our client is seeking to license the sensing technology to other industries and is open to a new revenue stream