

Real-world Emissions Testing Fuels Analysis

2023

Our Belief

When it comes to the pursuit of emissions reduction, we believe in the power of clarity, transparency and integrity. With real-world data we can meet emissions challenges – instilling trust and confidence in our industry partners and public.

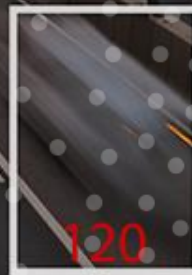
It's with our commitment and independence we are able to make a significant contribution toward positive change and to achieve enduring results.

Overview







- Emissions Analytics and its sister company, Oxford Indices, is privately owned by founder and CEO, Nick Molden honorary fellow of Imperial College London
- Oxford Indices laboratory launched in 2021 to deliver advanced VOC testing services
- UK Headquarters and laboratory based supported by colleagues in Germany, LA, South Korea
- Over 2,500 vehicles/machines tested across passenger cars, commercial vehicles and off-road machines
- Largest commercially available database of real-world emissions data
- Leading standardisation of new methods through CEN (European Committee for Standardisation)

Real-world Emissions

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Testing services

-  End-to-end project management
-  Flexible locations worldwide
-  Specialist across all applications
-  Vehicle sourcing
-  Bespoke test cycle design
-  High value data analytics



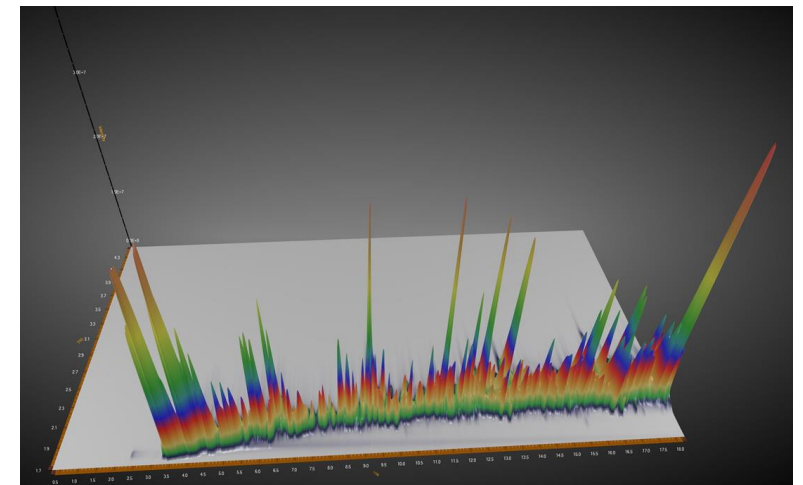
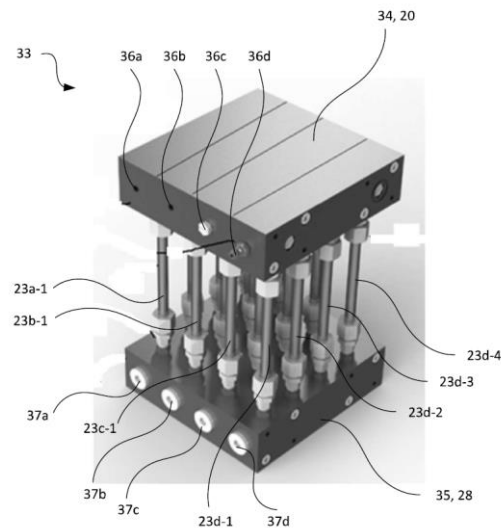
Types of testing

- PEMS Measurements: CO, CO₂, NO, NO₂, NO_x, N₂O, CH₄, NH₃, THC, PN & PM, CH₂O
- Passenger car RDE & Euro 6 ISC evaluation
- Truck and bus Euro VI/VII ISC and certification
- NRMM Stage V ISM
- Retrofit accreditation



PEMS + Gas Chromatography

- Patent pending innovation combining PEMS with two-dimensional GC
- Exhaust sampled via PEMS to a series of sample tubes
- Geofencing enables exhaust samples to be targeted
- Real-world samples analysed using advanced gas chromatography
- Enables full horizon VOC discovery and speciation





Fuels analysis

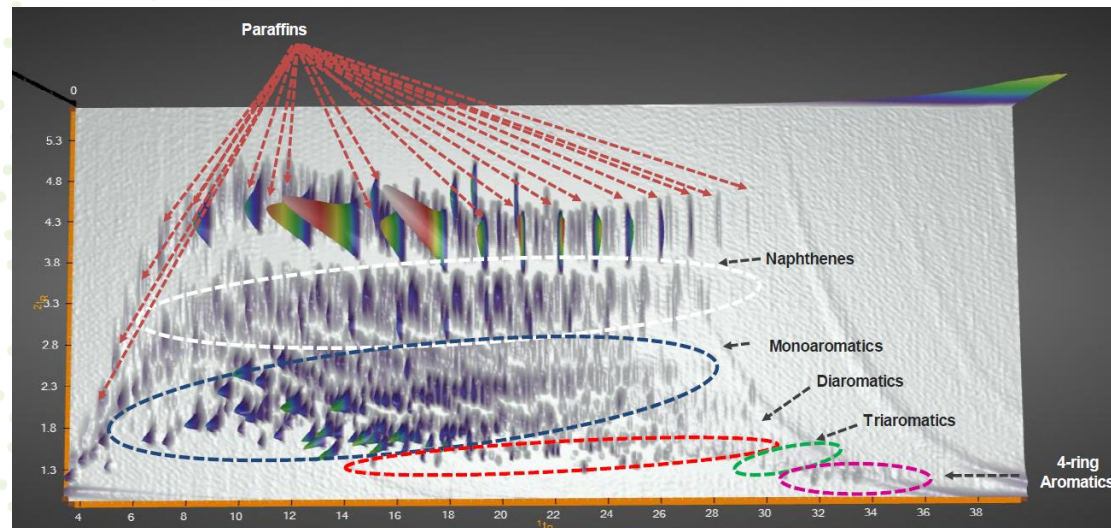
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Beyond Standard Fuels Testing

- Test to various standards: EPA, CEN, ISO, ASTM, VDA HSE, NIOSH, ECA etc.
- We specialise in research, development, diagnostics and pre-certification testing. To deliver this, we use a combination of recognised standards and methodologies, together with our own proprietary methods.
- Common areas where we can add value are:
 - ✓ Development work to meet required standards
 - ✓ Pre-certification verification and problem resolution
 - ✓ In-market problem diagnosis and solution
 - ✓ Exhaust emissions testing in real-world application

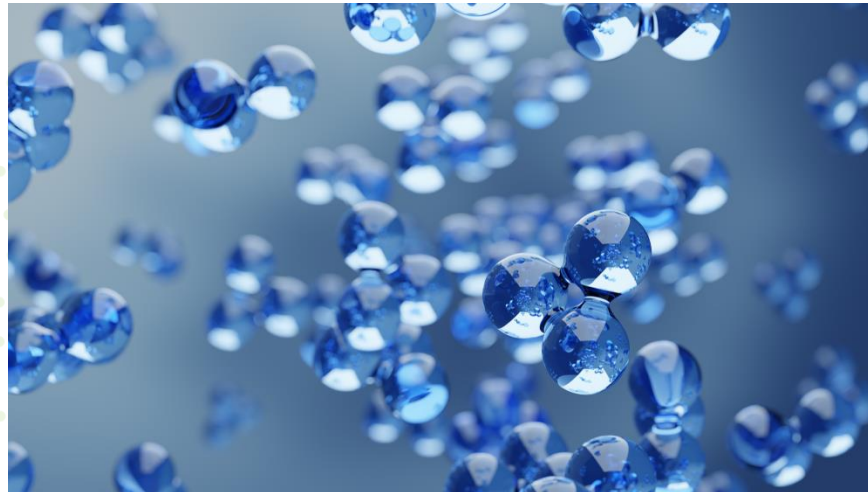
Fuels, lubricants, additives analysis

- Real-world efficiency and tailpipe emissions testing using PEMS
- Unregulated emissions measurement, including VOC speciation
- Chemical product analysis using gas chromatography/mass spectrometry
- Excellent compound separation using two dimensional GCxGC
- Compound identification and quantitation using multiple detectors



Purity analysis & contaminant identification

- Product purity is important for compliance and efficacy
- Evaluation the provenance of fuels feedstock
- Contaminants may be in extremely low concentrations but still can be identified
- Two-dimensional GCxGC with TOF-MS can separate compounds from C₂ to C₄₄ and identify at the parts-per-billion level to discover and speciate organics



Thank you.

Contact Us

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