

Colours & Chemicals

We are experts in custom synthesis, contract research and process development, of coloured and non-coloured molecules and provide analytical testing to support regulatory and market requirements.

Innovation in Colour from Synthesis to Stewardship

- New Product Development & Analytical Testing
- **Domestic & Foreign Positioning (USA, UK)**

Custom Synthesis & Research

- Pilot Scale Manufacturing
- FTE project exclusivity
- CRO programming flexibility
- Molecular structure review and property tuning

Asset Extension

- In-house pilot facility
- PR&D, Optimization, Scale-up
- Mg to Kg production for sampling (licensing) and next phase testing
- Toll manufacturing
- Batch sheet authoring, Risk Assessments

Equipment

- 1 x 20 L glass lined reactor (-20°C to 180°C)
- 2 x 50 L ATEX glass lined reactors (-30°C to 200°C)
- 50 L ATEX Buchi Rotavap
- 115 L ATEX Vacuum Oven
- Kg Silica Chromatography
- 20-25 L ATEX POPE jacketed filter-dryer
- 20 L Scrubber
- 11 R&D Fumehoods
- 3 Walk-in Fumehoods

*Designing Novel Dyes,
Organic Molecules, and Unique
Chemicals*

Analytical Services

Food Contact Compliance

- FDA migration studies (21 CFR 176.170 (Table 1 & 2))
- Resolution AP(89)1 compliance testing
- Toxicological compliance testing
- Consultation and material quality assurance
- **Guaranteed confidentiality, reported deliverables**

REACH Sameness Packages

- Full/partial analytical packages for individual dossier preparation
- Chemical sameness consultation per ECHA requirements

Non-Intentionally Added Substances (NIAS)

- State of the art separation and quantification
- Food contact impurity/peak interpretation

Impurity Analysis

- Impurity profiling
- SVHC quantification per Annex XIV of REACH legislation

HPLC • UV-Vis Spectroscopy • NMR • Mass Spectroscopy • Elemental Analysis • Thin Layer Chromatography
Infrared • X-Ray • Accurate Mass • pXRD • ICP/OES • DSC/TGA • Melting Point

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Colours & Chemicals

Products

- Optical Brighteners
- UV & IR Absorbers
- **Fluorescent Dyes and Fluorophores**
- Dichroic Dyes
- **Disperse/Solvent Soluble Dyes**
- Acid Dyes
- Basic Dyes
- Reactive Dyes
- Metal Complex Dyes
- Couplers and Intermediates
- Specialty Pigments
- Surface treated pigments

Specialty Applications

- Organophotovoltaic (OPV) Intermediates
- Organic Light-emitting Diode (OLED) Intermediates
- Solar Panels
- **Security**
- LCD's & Smart Windows
- Photochromic Dyes
- Ink Jet
- Specialty Coatings
- Electronics

Colour Synthesis has experience synthesizing all of the above Colour Index classes of dyes and applications.

Our Customers Trust Us

Our Reputation Is Built On IT

- Full client confidentiality, from initial briefing to project completion
- Intellectual property (IP) can be assigned to the customer as part of the body of outcomes of our research programs

Custom Dye Synthesis Manipulation

- Purity
- Shade
- Solubility
- Colour Fastness
- Dichroism
- Substrate Affinity

Chemistry Research

- Colour Chemistry
- Specific Chromophore/ Dye Design
- Heteroaromatic Chemistry
- Polymer Functionalization
- Electrophilic Aromatic Chemistry
- Cross-coupling Reactions
- High-pressure Hydrogenations


