

Providing Materials Solutions

Molecules to Manufacturing ™



#### **ABOUT**

Since 2001, Tetramer has provided research, development, and manufacturing of advanced materials and specialty chemicals. With backgrounds in organic, physical, polymer, and analytical chemistry, ceramic engineering, materials science, and chemical engineering, our scientists' expertise in materials design, synthesis, analytics, and scale-up allows us to address a broad range of technical and market challenges.

### **SERVICES**

Our customers desire product differentiation through superior materials. Our team of scientists and engineers excel in materials research and development (TRL 1-6), but we are differentiated by our ability to scale up (TRL 7-8) and manufacture (TRL 9) proprietary advanced materials for our customers.



Tetramer has the team and infrastructure in place to accelerate materials development and commercialization across all stages of the development lifecycle.

Materials Development Investigative Analytical Services
Manufacturing Technology Assessment







From low fat chocolate to laser weapons systems, Tetramer Molecular Architects work across a broad range of applications.

#### **APPROACH**

Our highly skilled chemists, engineers, and scientists work to create open clear communication of complex research challenges with our partners. We design and synthesize compounds with the molecular structures needed to provide desired properties which solve your problems. Our goal is to help our partners succeed by advancing materials technologies into the marketplace through a fundamental understanding of chemistry and business.

### **PARTNERS**

Tetramer works with our partners to develop market-driven materials and transition those materials from the lab to the market. From Molecules to Manufacturing, Tetramer supports our partners across every stage of the innovation process.

Our customers range from small business startups to global companies, with projects spanning diverse industries and markets. With extensive R&D and manufacturing capabilities, Tetramer can serve as both a research partner and a vendor supplying developed materials. We have the flexibility to tailor development contracts and nondisclosure agreements to fit the needs of individual relationship.







We've had an extraordinarily productive, creative collaboration with Tetramer that began 10 years ago with dormant technology. Together, we've overcome obstacles, broadened and deepened the science supporting our breakthrough food concept, and now we get to see these products on store shelves.

David Rowe | Founder and CTO | Epogee







#### SERVICES DETAIL

#### MATERIALS DEVELOPMENT

Molecular level research and development delivers enabling materials to diverse markets.

- Monomer, Polymer, and Nanocomposite Development
- Coatings/Adhesives
- Biorenewable Materials
- Formulations Development



## TECHNOLOGY VALIDATION AND TRANSITION ASSESSMENTS

Tetramer analyzes factors required to transition a new material from the lab to the marketplace, providing the customer with a comprehensive risk profile associated with each aspect of the transition process. Customers include universities, industrial open innovation groups, government agencies, and venture capital groups.

- Chemistry
- Scale-up
- Supply Chain
- Regulatory
- Cost Analysis & Manufacturing Sensitivity





#### INVESTIGATIVE ANALYTICAL

With access to analytical equipment in-house, Tetramer provides custom, investigative analytical support to meet a variety of customer needs. Tetramer's strong background in materials R&D and process research provides a unique capability in comprehensive analytical support for materials and processes.

- Full analytical lab staffed by analytical chemists
- Root Cause Analysis
- Deformulation
- Quality Evaluations



#### SPECIALTY MANUFACTURING

Developing technical transfer packages for scale up, Tetramer can custom manufacture specialty monomers, polymers, and resins and oversee larger toll manufacturing processes.

- In-house Manufacturing
- Secure Supply Chains
- ISO 9001:2015





### TETRAMER PRODUCTS



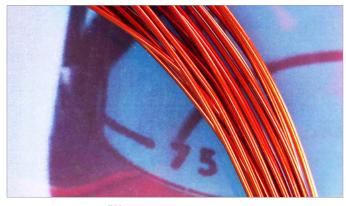
# TIMA™ UV-CURABLE FIBER OPTIC ADHESIVES

Robust, easy-to-use adhesive for repairs in the field



## EPOGEE™ LOW CALORIE FAT REPLACER

Low calorie fat replacer co-developed with Epogee and now sold in a variety of food products



## TETRIMIDE™ POLYIMIDE COATINGS

High-temperature, custom-color coatings for wire, fiber optic, and cable



## PERFLUOROCYCLOBUTYL IONOMERS

Tailorable polymer for gas separation, water vapor, or proton exchange membranes



#### **VBASE OIL COMPANY**

A Tetramer company, VBASE Oil Co. offers high performance base oils in a range of viscosity grades (ISO 32-460) that are biobased, biodegradable, non-toxic, and non-bioaccumulating. This New Class of High-Performance Synthetic Esters exhibits superior high temperature and hydrolytic stability with exceptional cold weather performance.

#### MOLECULES TO MANUFACTURING

### **Core Competencies**

Advanced Chemical Synthesis
Design of Functional Materials
Structure Property Relationships
Analytical Characterization

Joint Product Development
Process Research and Scale-Up
EHS and Regulatory Filing
Supply Chain

### FACILITIES .

Tetramer's 18,000 ft<sup>2</sup> facility houses over 6,500 ft<sup>2</sup> wet lab space furnished with 20 chemical hoods, fully-equipped reactors ranging from 1 to 150 liters, a Class 1000 cleanroom, environmental chambers, and much more.

Our on-site Analytical Lab is staffed by full time analytical chemists and provides chemical, electrical, optical, and thermomechanical characterization with access to an electron microscopy facility.



NIST 800-171 and CMMC Level 3 Security Program

DCAA Approved
Accounting System

Full-Time Security Officer
ISO 9001:2015 Quality



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