

WE GET IT.

Developing in-house advanced expertise in nanomaterials is expensive and time intensive. That shouldn't stop you from utilizing them to improve your products.

Cerion Nanomaterials Can Help

As a global leader in designing, scaling and manufacturing custom nanomaterials for companies developing products or systems in 40+ industries, Cerion provides the expertise and materials you require, while your team stays focused on advancing the development and delivery of your products and systems.

Providing Exactly the Right Nanomaterial Based Around Your Specific Goals

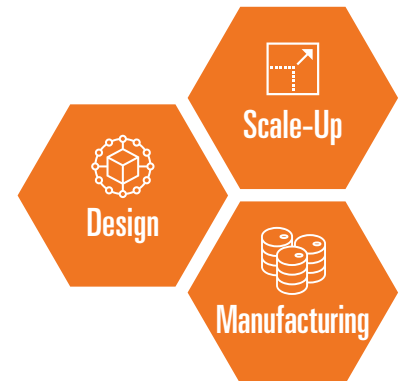
We work by learning about your technical and economic product goals first. Then we leverage our advanced expertise in the precision design of nanomaterials to create a material that is optimized for your exact use case, while also identifying a straightforward path to commercialization. This allows our customers to easily access and apply the unique and advantageous properties that nanomaterials can add to their products.

Successful Nanomaterial Integration into Coatings

Cerion has been working with coatings developers to design, scale-up and manufacture optimized nanomaterials that maximize performance in their products. This has allowed our customers to bring high-performing, differentiated products to market that helps to set them apart from their competition.

Our specialty is designing solutions that are compatible with your product and process, allowing you to seamlessly integrate the nanomaterial and preserve its performance. Our process includes working closely with your team to understand your product requirements, manufacturing conditions and desired end-state of the nanoparticle for integration. For incorporation into coatings products, this often requires optimization of the nanomaterial, including:

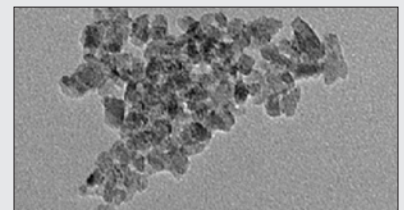
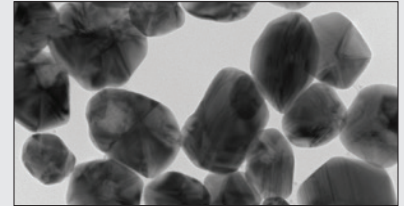
- Particle Size
- Particle Size Distribution
- Surface Charge
- Surface Functionalization
- Solvent System



Optimizing Nanomaterials for Your Product or System

Cerion scientists and engineers have decades of experience designing, scaling and manufacturing an expansive list of nanomaterials. Pairing this with our wide range of capabilities, including multiple synthetic processes and a fully-staffed analytical department, we are able to cost-competitively support our customers along their full product development roadmap. This includes designing the precise nanomaterial required to meet specific performance goals, ensuring seamless product integration, scaling up to commercial volumes while preserving critical features and attributes, and manufacturing at industrial scale.

Below is a Nanomaterial Property Reference Guide that highlights a few examples of inorganic nanomaterials and the desirable properties they can contribute to products when precisely designed for optimal performance and successful product integration.



	Alumina	Ceria	Iron oxide	Silica	Silver	Titania	Tungsten carbide	Zinc oxide	Zirconia
Abrasion resistant	✓			✓			✓	✓	
Anti-microbial					✓	✓		✓	
Anti-reflective	✓								
Catalyst		✓	✓		✓		✓		✓
Electrically conductive					✓				
Flame retardant	✓								
Hardness				✓			✓		✓
High refractive index						✓			✓
Moisture absorbent						✓			
Photocatalytic						✓		✓	
Scratch-resistant				✓			✓		✓
Self-cleaning						✓		✓	
Strength	✓			✓		✓	✓	✓	
UV absorbing/protecting		✓				✓		✓	
Water and/or dirt repelling				✓		✓		✓	

This guide features commonly sought after materials and properties. Interested in materials or properties not listed? We specialize in custom inorganic nanomaterials (metals, metal oxides and ceramics) for a diverse set of applications spanning 40+ industries.


Custom Nanoparticle Solutions for Your Product or System

For more than a decade, Cerion has been a leader in the science of designing, scaling and manufacturing metal, metal oxide and ceramic nanomaterials for global companies developing products or systems.

Contact for More Information:

 Chris Skipper
EVP Commercial Sales

 chris.skipper@cerionnano.com

 +1.585.294.4958