

iCRT- A DISRUPTIVE PLATFORM

CONTROLLED FERTILIZER & PESTICIDE SOLUTIONS

MODIFY RELEASE

Achieve immediate or extended release ranging from minutes to months. Enables superior control of the actives without unwanted degradation products or burst effects.

ENHANCE STABILITY

Protect sensitive molecules and stabilize high concentration, low volume actives to enhance your product performance and shelf life.

IMPROVE ENVIRONMENTAL PERFORMANCE

Reduced applications, dosage rates and active compound loss combined with only natural degradation products give improved environmental performance. Use of Urease and Nitrification inhibitors can also be reduced for Nitrogen fertilizers.

INCREASE LOADING

Decrease application frequency and overall active ingredient usage whilst retaining a stable formulation - a high percentage loading platform for fertilizer and pesticide formulations.

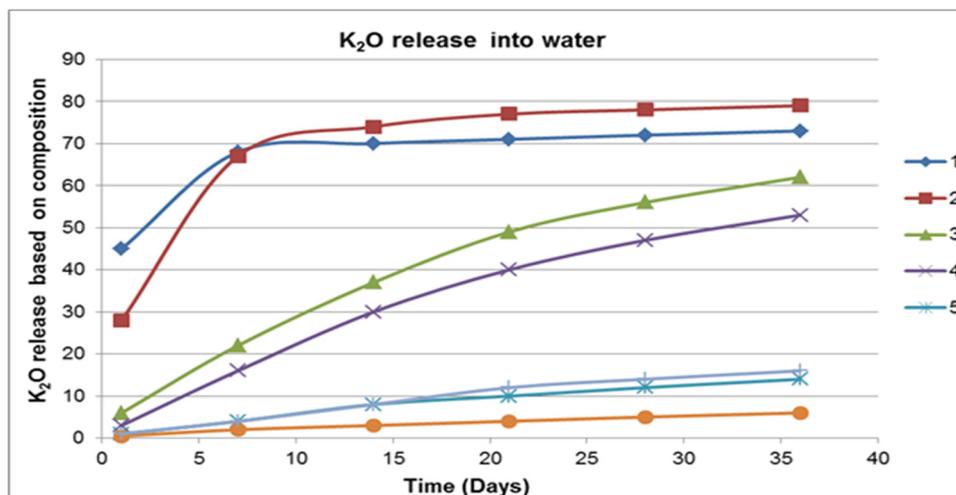
IMPROVE SOLUBILITY

Maximize the availability of your compounds - tackling poorly soluble molecules and maintaining stability by preventing recrystallization and precipitation for both solid or liquid/gel formulations.

SIMPLE, BRILLIANT, VERSATILE... OUR MATERIALS CAN DELIVER.

With a bit of magic (and materials science) this smart carrier can be tweaked to deliver compounds at whatever rate you want... Immediate, pulsatile, biphasic... weeks, months? The iCRT platform will deliver.

Our novel platform enables controlled release of formulations by manipulating the properties (e.g. porosity, solubility) of inorganic materials such as silica.



The platform can be an excellent reformulation tool for lifecycle management, and can be complementary to or an alternative to freeze drying when this causes problems.

Why Inorganic instead of Polymers?

We can manipulate inorganic materials to give stable release profiles. They are inert and ubiquitous to the environment, and can be modified to dissolve into constituent ions leaving behind only the active.

As a powder it can be blended into polymer composites to add further control over the release rate, or be cast into films or 3D structures or applied as a suspension.

The carrier is highly flexible and can utilize a range of triggers such as time, pH, and moisture to deliver actives to achieve more specific profiles, such as pulsatile and delayed release.

The chemistries we use are all GRAS - the difference with Lucideon's materials is how we manipulate them physically to give you tailored properties. That expertise and flexibility is not available with readily-available excipients.

We have designed the platform to be a robust yet versatile solution for all your drug delivery and formulation needs. We know that sometimes the solutions available aren't enough for certain products, so we have focused on tackling the most challenging of compounds and formulation issues.

WHY CHOOSE TO PARTNER WITH LUCIDEON?

We use our 70 years of expertise in materials and technologies development to create a competitive advantage for your business: differentiated products that are developed and commercialized quickly, reducing your development risks and costs and ensuring that you are first to market.

Get in touch to learn more about how our proprietary technology platform can give you the edge.

When Off The Shelf Won't Do...

www.lucideon.com

Materials Development • Testing • Assurance