



QustomDot

QustomDot
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Ink formulation chemist

Introduction

At QustomDot, a cutting-edge materials science startup founded in January 2020 and a Ghent University spin-off, we're on a mission to unlock the true potential of quantum dots (QDs) in the display industry. Our focus today lies in developing commercially viable, inkjet-printable QD inks for the first wave of microLED applications.

Quantum dots are revolutionary semiconductor nanoparticles that convert ultraviolet or blue light into vibrant colors like green and red through a process called down-conversion. We precisely control the size and emission color of our QDs using state-of-the-art synthesis techniques. A key advantage is their colloidal dispersion format, which allows for scalable and cost-effective processing methods like direct inkjet printing. While traditional QD technologies face limitations under high light and heat, QustomDot's groundbreaking approach makes QDs ideal for use as down-converters directly on LED chips – paving the way for microLED displays, the future of display technology.

QustomDot is seeking passionate and talented scientists to join our team and propel QD technology forward in the imaging and display industries.

In this pivotal role, you'll play a key role in formulating our photostable QD-polymer mixtures into inks specifically designed for inkjet printing of QD thin films and patterns. You'll be responsible for developing QD resin formulations, evaluating their morphology, and optimizing their optical properties for targeted microLED applications.

Profile

Qualifications:

- **Advanced Degree:** Ph.D. or Master's degree in Chemical Engineering, Chemistry, Material Science, or a closely related field.
- **Materials Expertise:** Hands-on experience developing and formulating materials for micro-scale applications (<50 μm) using one or more of the following techniques: photolithography, thin-film coating, inkjet printing, 3D printing, or other deposition/patterning techniques.
- **Team Player:** Thrives in a collaborative and dynamic small team environment.
- **Travel Willingness:** Flexible and open to occasional travel to customer facilities abroad.

Beneficial skills:

- **Industry Experience:** Prior experience within an industrial R&D or production setting is a plus.
- **Encapsulation Expertise:** Knowledge and experience with encapsulation techniques used in electronics or relevant fields.
- **Surface Modification Skills:** Familiarity with the chemistry of adhesives, self-assembled monolayers, or other surface treatment techniques is beneficial.
- **Nanoparticle Knowledge:** Understanding of colloidal nanoparticle synthesis and/or surface chemistry engineering is a strong asset.
- **Clean Room Experience:** Prior experience working in a clean room environment is preferred.
- **DoE Proficiency:** Familiarity with Design of Experiments (DoE) methodologies is a plus.

Our offer

We offer a full-time position in a growing company working at the cutting edge of display technology.

Interested?

Let us know via info@qustomdot.com by sending us your C.V. and motivation letter.