



QustomDot

QustomDot  
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## Quantum Dot Chemist

### Introduction

Colorful, functional, and efficient: discover the possibilities of quantum dots (QDs) with QustomDot. QustomDot is an advanced materials start-up founded in January 2020, and a Ghent University spin-off. We develop QD technology for future applications in color conversion.

QDs are semiconductor nanoparticles that can transform UV or blue light into pure colors such as green and red, through a process known as down-conversion. The emission color of the QDs is determined by the size of the QDs, which we precisely control through state-of-the-art synthetic procedures. A strong advantage of QDs is that they are obtained as a colloidal dispersion, which opens industrially relevant processing strategies such as direct printing or photolithography. As we speak, QDs are at the birth of the next technological revolution in the display industry, after LCD and OLED. Current QD technologies, however, suffer from instabilities under the influence of high light flux and elevated operating temperatures. We at QustomDot have developed a technology that renders QDs suitable to be used as down-converter directly on LED chips, thereby moving into the application field of microLEDs, *the next big thing*.

QustomDot aims to realize the full potential of QDs in the imaging and display industries and for that, we are looking for talented and motivated scientists to strengthen our team. As a QD Chemist, you will be responsible for pushing the limits of our semiconductor nanocrystals to beyond what anyone else can do. You will join a great team of experts in our new state-of-the-art lab to realize that. You will receive all the support you need to achieve your goals and to bring exciting and innovative QD products to the market. If your profile matches several points from the list below, we are interested in talking to you.

### Profile

Qualifications:

- PhD/Master's degree in (Chemical) Engineering, Chemistry, Material Science, or equivalent
- Experience in colloidal synthesis of nanocrystals
- Experience in characterization of optical, chemical and/or physical properties of nanomaterials through relevant experimental techniques
- Extensive understanding of surface chemistry of nanocrystals, hands-on experience in its engineering and characterization with relevant experimental techniques
- Experience in processing nanocrystals into inks, coatings and/or devices
- Open to working in a small international team and agile environment, willingness to travel and spend time at a customers' facilities abroad

Beneficial skills:

- Experience in an industrial R&D/production environment
- Experience in organic/metal-organic synthesis, sol-gel synthesis, batch/flow synthesis or other techniques relevant for nanocrystal synthesis or surface engineering
- Hands-on experience in air-free synthesis techniques
- Hands-on experience with solution-based processing techniques such as ink-jet printing, spin-coating, photolithography, or other deposition and/or patterning techniques
- Experience with design of experiment

### 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](mailto:info@qustomdot.com) by sending us your C.V. and motivation letter.