

Quantum Dot Chemist

QustomDot
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Introduction

QustomDot will be an advanced materials start-up, Ghent University spin-off, that will produce highly luminescent, on-chip grade Quantum Dots (QDs) and will closely work together with high-profile customers aiming to successfully integrate QDs into their products.

QDs are tiny semiconductor nanoparticles that can transform UV or blue light into other pure colors such as green and red, through a process known as down-conversion. The emission color of the QDs is determined by the exact 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. 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. As a consequence, QDs are currently used in a remote phosphor configuration that does not grasp the full potential of QDs in display applications. We at QustomDot have developed a technology that renders QDs stable enough to be used as down-converter directly on LED chips, thereby moving into the application field of micro LEDs, *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. There are currently several vacancies for which we are looking for a suitable candidate, among which for the position of QD Chemist. Other vacancies will be available via www.qustomdot.com. For the position of QD Chemist, we are looking for a profile as listed below. If your profile matches several points from the list, we are definitely interested in talking to you. As a QD Chemist, you will be in charge of the synthesis of highly luminescent QDs in our new, state-of-the-art chemical lab. You will guide developments in the synthetic procedure of our semiconductor nanocrystals and you will be closely involved with the further stages of QD processing, which will serve as a feedback for the synthetic protocols.

Profile

- PhD in Chemistry, Chemical Engineering or equivalent
- Experience in colloidal synthesis of nanocrystals (min. 4 years)
- Experience in characterization of nanomaterials through absorption and luminescence spectroscopy, Fourier-transform infrared spectroscopy and electron microscopy
- Experience in characterization of nanocrystal surface chemistry with NMR or other techniques
- Experience in processing nanocrystals into polymer matrices
- Hands-on experience with ink-jet printing, spin-coating, photolithography or other deposition and/or patterning techniques is a plus
- Open to working in a small team and flexible environment
- Fluent in English, knowledge of Dutch 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 and send us your C.V. and motivation letter.