QD Solar is an early-stage, well-funded, fast-moving company commercializing cutting-edge quantum dot (QD) solar cell technology out of Professor Ted Sargent's lab at the University of Toronto. Our mission is to become a world leading provider of photovoltaic (PV) products. Our new solar technology captures the energy in regions of the sun's infrared spectrum which silicon cells cannot harvest. Low-cost manufactured infrared solar cells will integrate with conventional silicon solar cells to increase the total power generated by these hybrid solar panels by more than 20%. Our core technology is based on nanometer-sized semiconductor particles which are processed from solution, are compatible with high-throughput, cost-effective roll-to-roll processing technologies. Our colloidally stable quantum dots are inorganic thus inherently more light- and air-stable than polymers.

QD Solar is seeking driven, passionate, self-motivated and enthusiastic R&D team members to join us as we bring our game-changing solar technology to market. Our R&D team is located in the heart of Toronto, Ontario, Canada. Candidates must be legally eligible to work in Canada. Interested candidates are encouraged to send a full CV and a list of at least 3 professional references to careers@qdsolarcinc.com.

QD Solar Senior Device Engineer

We are looking for a dynamic Senior Device Engineer with outstanding technical skills, work ethic and ingenuity to join the core of our team and help build the future of solar technology.

Responsibilities:

- Reporting directly to the CTO, you will be part of the R&D team to develop the hybrid solar technology.
- You will lead the infrared colloidal quantum dot solar cell product development. You will develop solution-based deposition processes to create large-area solar cells with the infrared photovoltaic materials.
- You will be the process and materials liaison with our industry partners and external vendors for the solar cell fabrication.
- You will apply fundamental characterization methods including IV, EQE, stability, lifetime measurements. You will lead advanced materials characterization efforts.
- You will lead the development of encapsulation techniques to stabilize the solar cell performance. You will work with our industry partners to demonstrate the long-term stability of the infrared solar cells.
- You will be the key contributor for certification of the infrared solar cells

Requirements:

- You have a PhD in materials science, chemistry, electrical engineering, or related fields
- You have more than 5 years of experience in the development of solution-processed solar cells. Experience in the development of colloidal quantum dot solar cells is an asset.
- You have proven experience with the characterization of the physical, electrical and optical properties of solar materials.
- You bring experience in large-area solution-based coating techniques including blade-coating, doctor-blading, spincoating and inkjet printing.
- You have experience in encapsulation methods of thin film optoelectronic devices.
- You have a proven ability to work in a multidisciplinary team and have the drive and motivation to succeed in the fast-paced environment of a solar technology start-up company.