

Evert Jonathan van den Ham

Born: 5 May 1988 Brakel, the Netherlands / Dutch nationality / Age 28 / Married

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Working experience:

PhD Student – (2012-present; 3 years and 7 months)

Employer: *Institute for Materials Research / Hasselt University*
(Diepenbeek, Belgium)
Branch: Research (inorganic chemistry)
Description: Application oriented study on the use of liquid chemistry for all-solid-state Li-ion batteries, based on thin metal-oxide coatings. To do so, I used (ultrasonic) spray-coating with aqueous/organic solutions, gels and suspensions to prepare the coatings on various substrates, including non-planar geometries. Results were presented at several international conferences and published as 3 (co)author publications in chemical and materials science research journals, including a recent (2016) publication on the use of ultrasonic spray coating in *RSC Advances*.
Additional tasks / duties: Spray-coater responsible: maintenance and training of new users. Assistant for the BSc. Chemistry course: 'Physical transport phenomena' (together with *Prof. Dr. Ir. Deferme*).

Junior Engineer – (2012, 2009 and 2008; 5 months full-time in total)

Employer: *Versatec energy B.V.* (Woerden, the Netherlands)
Branch: Oil & Gas Industry
Description: Working at *Total E&P* completing a maintenance campaign for oil rigs. In addition, I performed consultancy activities for oil companies such as *Shell* and *Centrica*. This included evaluating and redesigning internal procedures, completing Health Safety and Environment (HSE) documents, process flow diagrams and operating manuals.

Junior Engineer [Intern] – (2012; 4 months full-time)

Employer: *National aerospace laboratory [NLR]* (Marknesse, the Netherlands)
Branch: Aerospace Industry
Description: Feasibility study on removal of aircraft coatings (polymer) from aluminum and fiber-reinforced composites using laser technology. My responsibility included design of experiments, contractor selection, coordinating laser trials in Germany (*SLCR*) and Belgium (*P-Laser*) and physical analyses. Finally, I reported and presented the feasibility of this innovative concept on larger scale.

References for all working experiences are available at request

Completed education:

Master chemical engineering (2009-2012) – Honor award: ‘With great appreciation’

Institution: *Eindhoven University of Technology*
Content: Chemical engineering with sub-track ‘Polymers & Composites’, focusing on material science. Several elective courses in on polymer technology, biodegradable polymers and polymer characterization (incl. rheology).
MSc. Graduation Project: Synthesis of porous ceramics by preparing colloidal crystals with polymer (PS) beads. Included a scientific publication.
Grade: 8,5 out of 10.
Location: Eindhoven, the Netherlands

Degree technical management (2010-2011)

Institution: *Eindhoven University of Technology (Industrial Engineering)*
Content: Consisted of courses and case studies on business economics, project management, product development, marketing and inventory control.
Location: Eindhoven, the Netherlands

Bachelor chemical engineering (2006-2010)

Institution: *Eindhoven University of Technology*
Content (Major): Broad chemical engineering program consisting of material science, molecular- and process engineering, combined with multi-disciplinary projects.
Content (Minor): ‘Education and Communication’, consisting of several courses and projects on didactic skills and communication science.
BSc. Graduation Project: Vulcanization by extrusion of polymer/elastomer blends to enhance the mechanical properties of the composite material. Grade: 8 out of 10.
Location: Eindhoven, the Netherlands

Pre-university education – VWO (2000-2006)

Institutions: *IVIO World School and Christian School Association Walcheren (CSW)*
Location: Eldoret (**Kenya**) and Middelburg (the Netherlands)

Skills:

Lab skills (chemistry), broad experience with (ultrasonic) spray coating of (semi)conductor materials, as well as spin-coating. Strong design / synthesis skills to optimize deposition processes for oxide coatings.

Characterization:, Microscopy, gravimetrical analysis (TGA-DSC / MS), contact angle measurements (solid / liquid), analytical methods (ICP-OIS, FTIR, UV/VIS), tensile testing, X-ray diffraction and electrochemical methods (galvanostatic / potentiostatic).

Computational skills: Origin, Statgraphics, MS Office, EVA (Brüker), NOVA (Metrohm)

Languages: Dutch (native), English (professional), German (limited), Swahili (limited)

Driver license: Dutch and Kenyan license

Other Activities:

Students association (2006 – 2012)

Active member of the Christian Student Association ‘Ichthus Eindhoven’. Fulfilled several functions, including end-editor of the associations’ magazine and camp organizer.