

Klaas Jan Schouten appointed Research Assistant Professor Electrocatalysis and Applied Electrochemistry

AMSTERDAM, 18 September 2019, 17:30 CET – Dr. Klaas Jan Schouten, program leader for Avantium’s front running electrochemistry program [Volta](#), has been appointed Research Assistant Professor Electrocatalysis and Applied Electrochemistry at the [Faculty of Science of the University of Amsterdam \(UvA\)](#). This position is facilitated by Avantium through a strong collaboration between UvA and Avantium to accelerate the development of new products and processes using electrochemistry and connecting the company to fundamental research.

In this new position, Klaas Jan Schouten will focus his research on understanding current electrocatalytic systems and make the translation to new processes with high application potential. Schouten will look into unlocking new carbon sources for the chemical industry, such as plant-based feedstock and carbon dioxide. He will explore large scale energy storage in chemical bonds, which will be crucial in a future society that is fully based on renewable energy. Additionally, Schouten will focus on strengthening the research community on electrochemistry in Amsterdam by contributing to the further shaping of the Amsterdam Centre for Electrochemistry.

About Klaas Jan Schouten

Dr. Klaas Jan Schouten obtained his MSc Cum Laude in 2009 from Leiden University, after which he continued with Prof. Marc Koper for a PhD project on electrochemical carbon dioxide reduction. His thesis has been awarded with the Dutch Catalysis Society Award 2015 and the European Federation of Catalysis Societies (EFCATS) Best PhD Thesis Award 2015. Schouten is working for Avantium since 2013, initially as project leader and since 2017 as program manager for Avantium’s Volta program.

Volta: converting CO₂ to high value chemicals via electrochemistry

Avantium’s Volta program is a platform technology that develops CO₂-utilization solutions for a circular future. The current Volta platform has been developed by bolstering Avantium’s existing electro-catalytic know-how with the acquisition of the Princeton start-up Liquid Light Inc. Volta is a frontrunner in the use of gas diffusion electrodes that convert gases such as CO₂ to high value chemicals and fuels.

The Volta team is currently scaling up from lab to pre-pilot installations. The first units focus on CO₂ conversion and are part of consortia where Avantium operates the units at the [Prodock](#) building in the Port of Amsterdam. Avantium actively participates in industry associations and currently cooperates with over 35 partners in European grant consortia that also provide the company with over €5 million in grants. An example of such a collaboration is the EU-funded project [CELBICON](#), in which Avantium is converting carbon dioxide, captured directly from air with a unit produced by the Swiss company Climeworks, to syngas.

Avantium is a founding member of the industry association [CO₂ Value Europe](#) participating on the board of this association and engaging with companies and research institutions that share the belief that carbon capture and utilization (CCU) technologies are needed for our circular future.

About Avantium

Avantium is a leading technology development company and a forerunner in renewable chemistry. Avantium develops novel technologies based on renewable carbon sources as an alternative to fossil-based chemicals and plastics. The company currently has three technologies at pilot and demonstration phase. The most advanced technology is the YXY® plant-to-plastics-technology that catalytically converts plant-based sugars into a wide range of chemicals and plastics, such as PEF (polyethylene furanoate). Avantium has successfully demonstrated the YXY Technology at its pilot plant in Geleen, the Netherlands. The second technology is the Dawn Technology™ that converts non-food biomass into industrial sugars and lignin in order to transition the chemicals and materials industries to non-fossil resources. In 2018, Avantium opened the DAWN pilot biorefinery in Delfzijl, the Netherlands. The third technology is called Mekong and catalytically converts industrial sugars to plant-based MEG (monoethylene glycol). Avantium is currently building a new demonstration plant for Mekong with an opening planned in Delfzijl by the end of 2019. Next to developing and commercializing renewable chemistry technologies, the company also provides advanced catalysis R&D services and systems to customers in the refinery and chemical industries. Avantium works in partnership with like-minded companies around the globe to create revolutionary renewable chemistry solutions from invention to commercial scale.

Avantium's shares are listed on Euronext Amsterdam and Euronext Brussels (symbol: AVTX). Its offices and headquarters are in Amsterdam, the Netherlands.

About the University of Amsterdam

The Faculty of Science supports excellent research in all basic disciplines of the sciences. It is organized in eight research institutes, one of which is the Van 't Hoff Institute for Molecular Sciences ([HIMS](#)). This institute comprises most of the chemical research in the faculty, focusing on four research themes with strong interactions: Sustainable Chemistry, Computational Chemistry, Analytical Chemistry and Molecular Photonics. Scientists from the four themes work together in the Research Priority Area Sustainable Chemistry.

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