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# A Farewell Symposium to the Retiring Professors Catherine E. Housecroft and Edwin C. Constable

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*Abstract:* On the 5th of May 2023, the Department of Chemistry at the University of Basel celebrated the careers of their long-term colleagues Catherine E. Housecroft and Edwin C. Constable with a farewell symposium. Seven former coworkers and current colleagues of the Housecroft/Constable group, from Australia, Germany, the United Kingdom, New Zealand and Oman, gave invited talks. A large crowd gathered for an afternoon of science and personal interactions.

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In early 2022 and 2023 ***Professor Catherine E. Housecroft*** and ***Professor Edwin C. Constable*** (Fig. 1) retired after many years of contributions to science and chemical education.

A farewell symposium honoring Catherine Housecroft and Ed Constable was therefore organized at the Department of Chemistry of the University of Basel on Friday, May 5, 2023. The Dean of the Faculty of Science of the University of Basel and Professor of Chemistry, ***Marcel Mayor***, opened the symposium and welcomed Catherine and Ed, as well as the audience. Mayor gave a brief account of the careers and biographies of Catherine and Ed and shared memories from his first meeting with Ed, which involved a memorable car ride.

After the welcome address, ***Professor Murielle Delley*** (University of Basel), one of the organizers of the event, led through the first part of the program and introduced the first speaker, ***Professor Jon Beves*** (UNSW, Australia), a former PhD student under joint supervision by Catherine and Ed in Basel.

Fig. 1. Professors Edwin C. Constable and Catherine E. Housecroft.

Beves showed highlights of his current research that include a variety of supramolecular coordination assemblies based on palladium and pyridine. Isomers of such self-assemblies can be switched selectively by visible light, which is of large interest especially in the context of the development of light-responsive materials.

***Dr. Emma Schofield*** (Johnson Matthey, UK), another former PhD student under joint supervision by Ed and Catherine in Basel, then talked about the platinum group metals as critical materials for the energy transition. She showed the importance of Pt recycling to supply the growing industry of electric cars running on fuel cells. The recycling of noble metals is very challenging and requires a series of sophisticated processes that have been optimized by Johnson Matthey.

The first session of the symposium concluded with a talk by ***Professor Michael Ward*** (University of Warwick, UK), who was one of the first PhD candidates from Ed's Cambridge group and who attended Catherine and Ed's wedding in 1987. Ward introduced coordination cages as catalysts. He showed that coordination cages can bind substrates inside the cavity by hydrophobic interactions and anions on the surface by electrostatic interactions. The coordination cage thereby enforces a close proximity of anions and cavity guests that can be used to react these in a redox catalysis mediated by $Co^{2+}/Co^{3+}$ corners of the coordination cage.

During a short coffee break, lively discussions took place between audience members, speakers, and the honored guests, Ed and Catherine.

Then, ***Professor Oliver Wenger*** (University of Basel) led through the second part of the program and introduced ***Professor Richard Hartshorn*** (University of Canterbury, New Zealand) as a first speaker. Hartshorn spoke in his role as an engaged member of the International Union of Pure and Applied Chemistry (IUPAC) and as a colleague of Ed in IUPAC. He highlighted the importance of scholarship and the impact of Catherine and Ed on the chemical community through the impressive number of historical reviews and textbooks that the two have published. Richard Hartshorn explained that especially for polynuclear coordination chemistry IUPAC naming conventions are not solved yet. Together with Ed he is working on finding correct names for such compounds, which can easily span over 15 lines of text. Hartshorn stressed that IUPAC also focuses on other important tasks beyond naming conventions, such as establishing digital standards in chemistry.

The next speaker, ***Professor Michael Hannon*** (University of Birmingham, UK), had benefited from both Ed and Catherine's teaching as an undergraduate in Cambridge and was a PhD student in Cambridge under Ed's supervision. He showed the exciting chemistry of nanocylinders that can bind the Y-shape forks of DNA. This binding of DNA can be used for much-needed medical applications, such as blocking the HIV replication by stopping cell growth.

***Professor Musa Shongwe*** (Sultan Qaboos University, Oman) then joined the farewell symposium online. Shongwe was the first PhD student from Catherine's Cambridge group and reminisced on the excellent mentorship and teaching abilities of Catherine. He presented current research on the spin state and spin transition behavior of a Fe(III)-based molecular system as a function

of varied substituents to a SalBzen ligand. Such slight changes to the ligand can change the spin state and spin transition behavior of the complex dramatically: from low-spin to high-spin or to 50/50 low-spin/high-spin, and from hysteretic and abrupt to gradual and plateauing.

The last speaker of the symposium was a former postdoctoral associate in the Constable/Housecroft group and junior lecturer in Basel from 2004 to 2007, ***Professor Egbert Figgemeier*** (Forschungszentrum Jülich, Germany). Figgemeier discussed the complexity of the solid-electrolyte interphase of batteries, a multicomponent region that extends into three dimensions and in which a myriad of chemical reactions happen during charge and discharge cycles. His current research efforts focus on new stabilization strategies of the solid-electrolyte interphase by electrolyte additives and the development of high-capacity materials as negative and positive electrodes.

***Professor Olivier Baudoin***, the head of the Department of Chemistry at the University of Basel, closed the symposium with thanks to Catherine and Ed for their many years of contributions to the Department and the University of Basel and with well-wishes for all their future endeavors. Ed then thanked the speakers and organizers of the symposium, staff and colleagues at the University of Basel, and all past and present students and collaborators in the name of Catherine and himself.

An Apéro Riche after the symposium gave room to a stimulating exchange on science and to reliving shared memories. While the contributions of Ed and Catherine as dedicated mentors and educators, brilliant scientists, and valuable members of the Department of Chemistry at the University of Basel will be much missed, the double act will remain a key driving force in the Swiss and European chemical communities in their many capacities including Editor-in-Chief of *CHIMIA*, board member of the Swiss Chemical Society, and promoter of chemical education (CEH), member of the steering committee of the European Universities Association Council for Doctoral Education, the executive committee of the Swiss National Science Foundation, and IUPAC policy maker (ECC), and many joint efforts in science and education.

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Fig. 2. Professors Catherine E. Housecroft and Edwin C. Constable with speakers of the farewell symposium (Musa Shongwe joined the symposium online). From left to right: Professor Jon Beves, Professor Richard Hartshorn, Dr. Emma Schofield, CEH, ECC, Professor Michael Hannon, Professor Michael Ward, and Professor Egbert Figgemeier.