

E Gordon Young Lecture 2017 (#CICEGYLecture)

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Putting the f in chemistry – making molecules that help us safeguard our nuclear waste



Abstract: A fundamental understanding is needed to develop safe, long-term handling of our nuclear waste legacies and for cleaner ways to extract technology-critical rare earth metals. The subtleties of structure and bonding in compounds of uranium, the heaviest naturally occurring element, and its neighbours in the f-block are still poorly-understood. Drawing on our research to make exotic new molecules from these metals, this lecture will explore what chemistry can teach us about these complicated but important metals.

About Professor Arnold: Professor Polly L. Arnold is the Crum Brown Chair of Chemistry at the University of Edinburgh. She holds degrees from Oxford University and Sussex University, and was a Fulbright postdoctoral fellow at MIT prior to returning to a lectureship in the UK in 1999. Her research is focused on exploratory synthetic chemistry of the heavy elements at the bottom of the periodic table, the f-block. With the support of Royal Society's 2012 Rosalind Franklin Prize, she produced the short-film "A Chemical Imbalance" as a call to action for simple changes to achieve equal opportunity for women and minorities in STEM. For her contributions to chemistry and to women in STEM, she was appointed an Officer of the Order of the British Empire in 2017.