



FACULTY OF SCIENCE
Charles University

School of Chemistry, Faculty of Science,
Charles University invites for a lecture

Quo Vadis Chemie

From Chemical Curiosities to Versatile Reagents: Heavy Group 15 Analogues of the Cyanate Ion



which will be delivered by

**Professor Jose M.
Goicoechea**

from the University of Oxford, UK

on October 9, 2017 at 15:00

in the lecture hall CH2 at the School of Chemistry, Faculty of Science, Hlavova 8.

Abstract: The 2-phospha- and 2-arsaethynolate anions (PCO^- and AsCO^- , respectively) have recently become synthetically accessible on multi-gram scales. These heavier analogues of the cyanate ion are rare species in that they contain highly reactive pnictogen–carbon multiple bonds, yet can be manipulated with ease due to their negative charges (which preclude common decomposition pathways associated with isoelectronic species such as phosphalkynes, $\text{P}\equiv\text{C}-\text{R}$). This talk will survey recent reactivity studies on these remarkable anionic species, highlighting their enormous chemical versatility for the synthesis of novel molecular compounds, clusters and materials.