



## Phosphorus Ligands for the Stabilization of Unusual and Elusive Structures in Transition Metal Complexes

Guest Editor:

### Prof. Dr. Riccardo Peloso

Instituto de Investigaciones Químicas (IIQ), Departamento de Química, Inorgánica and Centro de Innovación en Química Avanzada (ORFEO-CINQA), Consejo Superior de Investigaciones Científicas (CSIC) and Universidad de Sevilla, Avenida Américo Vespucio 49, 41092 Sevilla, Spain

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**closed (31 May 2023)**

### Message from the Guest Editor

Dear Colleagues,

Phosphines and related P(III) ligands constitute one of the most-used classes of ligands in coordination and organometallic chemistry and have great potential for application in homogeneous catalysis. Their electronic and steric characteristics can easily be tuned by varying the three substituents on the phosphorus atom, thus covering an ample range of properties that span from small strong  $\sigma$ -donating ligands such as  $\text{PMe}_3$  to bulky less-basic  $\pi$ -accepting ligands such as tris(*o*-tolyl)phosphite. P(III) ligands, in either the monodentate form or a polydentate/hybrid form, have played a crucial role in the stabilization of elusive species and unusual structures within transition complexes, allowing for the isolation and/or detection of agostic complexes,  $\sigma$ -alkane adducts, non-heteroatom-stabilized alkylidenes, and low-coordinate unsaturated species, among others. With this Special Issue, we aim to present a collection of research and review articles dedicated to the design and applications of phosphines and related ligands, with special reference to the stabilization of elusive and unusual structural motifs in transition metal complexes.





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## Editor-in-Chief

**Prof. Dr. Duncan H. Gregory**  
School of Chemistry, University of  
Glasgow, University Avenue,  
Glasgow G12 8QQ, UK

## Message from the Editor-in-Chief

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*Inorganics* Editorial Office  
MDPI, Grosspeteranlage 5  
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