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Sommario/riassunto

As the fields of organometallic and coordination chemistry of the transition metals has grown more mature, the under-explored chemistry of the rare-earths and actinides has drawn the attention of research groups from across the globe looking for new fundamental discoveries and access to compounds with unique properties. The rare-earths--the group 3 metals and the 4f lanthanide series--have long shown many interesting properties in the solid state which exploit their unique electronic configurations. However, it is the molecular chemistry of these metals that has expanded dramatically in recent years as researchers identify the differences between--and unique features of--their molecular compounds. Recent highlights include the identification of new oxidation states and patterns of reactivity as well as applications in medical imaging and health care which represent new and exciting areas of research. The actinides show a wide range of different properties as a consequence of their radioactivity and radiochemistry, but this has not stopped recent rapid progress into the exploration of

their unique chemistry. Uranium, in particular, shows huge potential with its transition metal-like range of oxidation states (+2 to +6), and in specialised laboratories, the heavier actinides are also beginning to show their unique chemistry. This Special Issue aims to bring together these strands of research in an openly-accessible way to allow better communication of these advances to a wider audience. This is necessary as, despite these exciting advances, the rare-earths and actinides are still much neglected topics in both school and undergraduate curriculums. Contributions in the above-mentioned areas will allow new research in the rare-earths and actinides to inform and influence the next generation of scientists and keep the field as vibrant as it is today.