

The diagram illustrates a complex polynuclear lanthanide complex. The structure features a central chain of lanthanide (Ln) ions connected by various bridging ligands, including oxygen (O) and nitrogen (N) atoms. The complex is characterized by several distinct clusters and bridging motifs:

- Central Ln₃O Cluster:** A cluster of three lanthanide ions bridged by an oxygen atom, with bond lengths of 1.7 Å (Ln-O) and 1.6 Å (Ln-Ln).
- Ln₂N₂ Cluster:** A cluster of two lanthanide ions bridged by two nitrogen atoms, with bond lengths of 1.5 Å (Ln-N) and 1.4 Å (Ln-Ln).
- Ln₃O Cluster:** A cluster of three lanthanide ions bridged by an oxygen atom, with bond lengths of 1.1 Å (Ln-O) and 1.0 Å (Ln-Ln).
- Terminating Clusters:** The chain is terminated by a Ln₂O₂ cluster (left) and a Ln₂O cluster (right).

The structure is highly symmetric and complex, with many bond lengths labeled in Å. The lanthanide ions are represented by 'Ln' and the bridging ligands by 'O' and 'N'. The bond lengths are as follows:

- Ln-O: 1.7, 1.1, 1.0, 1.3, 1.2, 1.5, 1.4, 1.6, 1.8, 1.9, 2.0, 2.1, 2.2
- Ln-Ln: 1.6, 1.4, 1.1, 1.0, 1.2, 1.3, 1.5, 1.6, 1.8, 1.9, 2.0, 2.1, 2.2
- N-N: 1.5, 1.4