

Three isomorphous Ln complexes: $\{[\text{Ln}_2(\text{bt})_6(\text{bno})(\text{H}_2\text{O})_4] \cdot \text{bno}\}_n$ (bt is but-2-enoate and bno is 4,4'-bipyridyl N,N'-dioxide), with Ln = Nd, Er and Y

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The polymeric title compounds, namely catena-poly[[[di - but-2-enoato- 3 O:O,O?;3 O,O?:O?-bis-[diaqua-dibut-2- enoato-O;2 O,O?-neodymium(III)] - 4,4'-bipyridyl N,N'-dioxide-2 O:O?] 4,4'-bipyridyl N,N'-dioxide solvate] and the erbium(III) and yttrium(III) analogues, $\{[\text{Ln}_2(\text{C}_4\text{H}_5\text{O}_2)_6(\text{C}_{10}\text{H}_8\text{N}_2\text{O}_2)(\text{H}_2\text{O})_4] \cdot \text{C}_{10}\text{H}_8\text{N}_2\text{O}_2\}_n$ (Ln = Nd, Er and Y), form from $[\text{Ln}_2(\text{bt})_6(\text{H}_2\text{O})_4]$ dimers (bt is but-2-enoate) bridged by 4,4'-bipyridyl dioxide (bno) spacers into sets of parallel chains; these linear arrays are inter-connected by aqua-mediated hydrogen bonds into broad two-dimensional structures, which in turn inter-act with each other through the hydrogen-bonded bridged bno solvent units. Both independent bno units in the structures are bisected by symmetry centres. © International Union of Crystallography 2007.