

## Cover Picture

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**The cover picture shows** a novel hierarchic endohedral clusterization of H<sub>2</sub>O molecules in the form of a dodecahedron ((H<sub>2</sub>O)<sub>20</sub>, red), a further “mounted” dodecahedron (green), and a rhombicosidodecahedron ((H<sub>2</sub>O)<sub>60</sub>, yellow). The shell/host (Mo atoms blue, O red) is built up by 12 pentagonal {(Mo)Mo<sub>5</sub>} type building blocks (one is highlighted as a blue ring), which are connected by 30 MoV<sub>2</sub> linkers with the consequence that 20 nanosized Mo<sub>9</sub>O<sub>9</sub> pores/rings of classical crown ether quality are formed in which 20 guanidinium cations are encapsulated (C black, N green). The MoV<sub>2</sub> type linkers are stabilized by PO<sub>2</sub>H<sub>2</sub><sup>-</sup>/SO<sub>4</sub><sup>2-</sup> ligands (P/S purple). As the clusterization in the cavity takes place after filling the receptors/pores at the cluster surface with guests, a process is modeled by which a cell converts an extracellular molecular signal into a response. The representative red ring below the blue ring is marked out by the 60 H<sub>2</sub>O ligands coordinated to the pentagonal Mo units, which altogether form a rhombicosidodecahedron (not shown completely). As the geometric forms described are those of Platonic and Archimedean solids Plato and Archimedes feel involved. Further details are reported by A. Müller et al. on p. 3756 ff.

