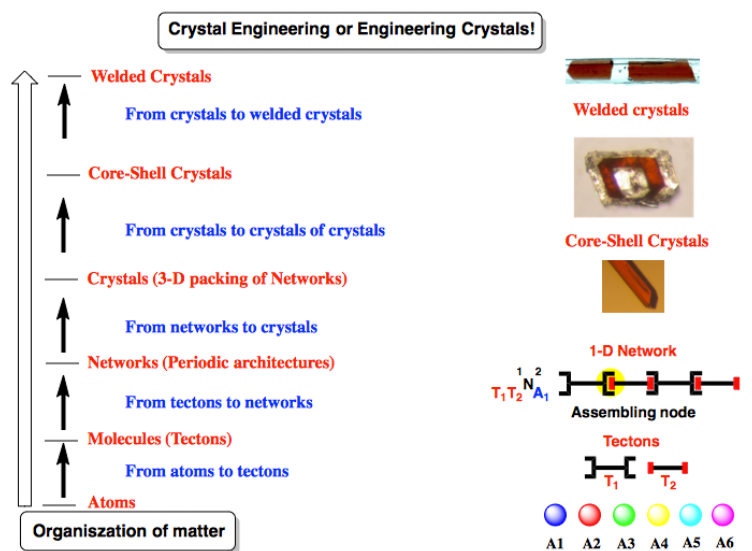


Molecular tectonics: from networks of molecules to networks of crystals

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Bridging the gap between microscopic (atoms and molecules) and macroscopic (materials) worlds is challenging and requires construction strategies. At the intersection of supramolecular and solid state chemistry and material sciences, we have developed an approach called molecular tectonics. This approach is based on supramolecular synthesis of crystalline materials seen as extended periodic molecular networks. Their construction by self-assembly processes results from repetitive molecular recognition events between programmed tectons or building blocks. The approach is operational and versatile and allows, not only the design and construction of a variety of organic or hybrid complex architectures and core-shell crystals, but also the welding, under mild condition, of crystals into networks of crystals.



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