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Title: New Materials from Search-&-Synthesis Approach

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Intended for: Documentation for Greg Scantlen (CreativeC, Albuquerque) to show how his VASP Instrument computational platform is being used.

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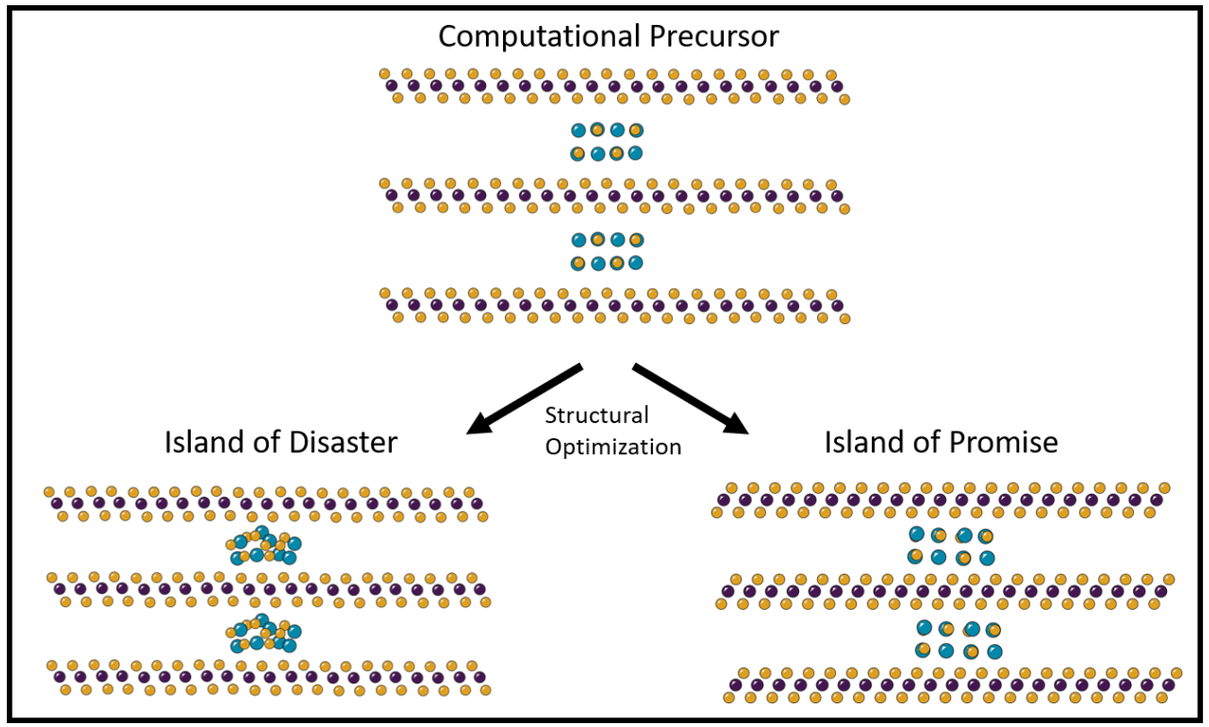
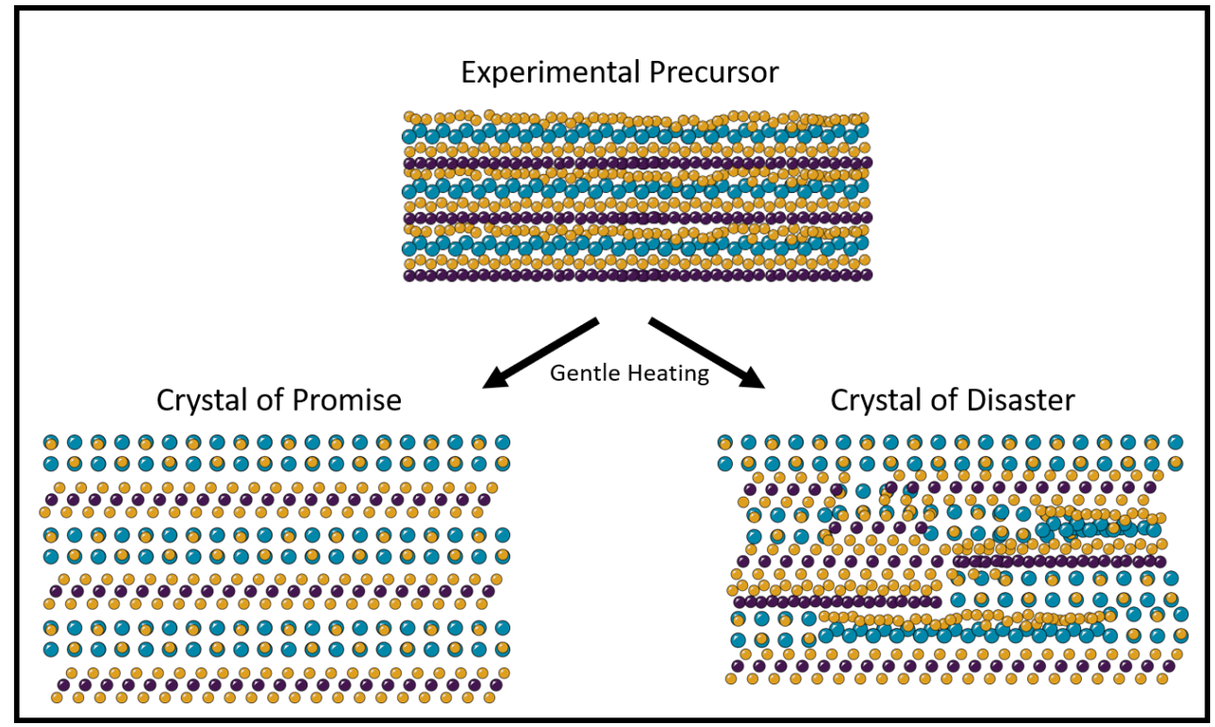
New Materials from Search-&-Synthesis Approach





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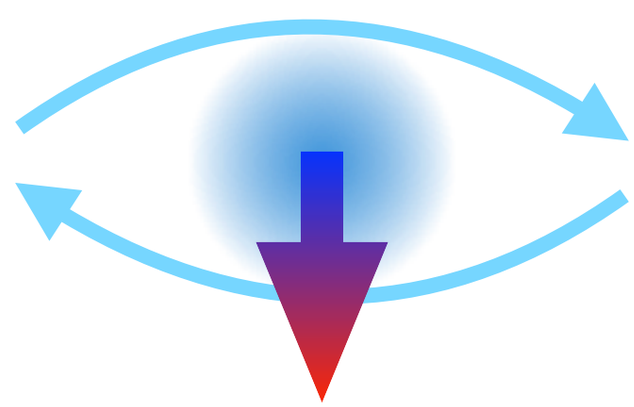
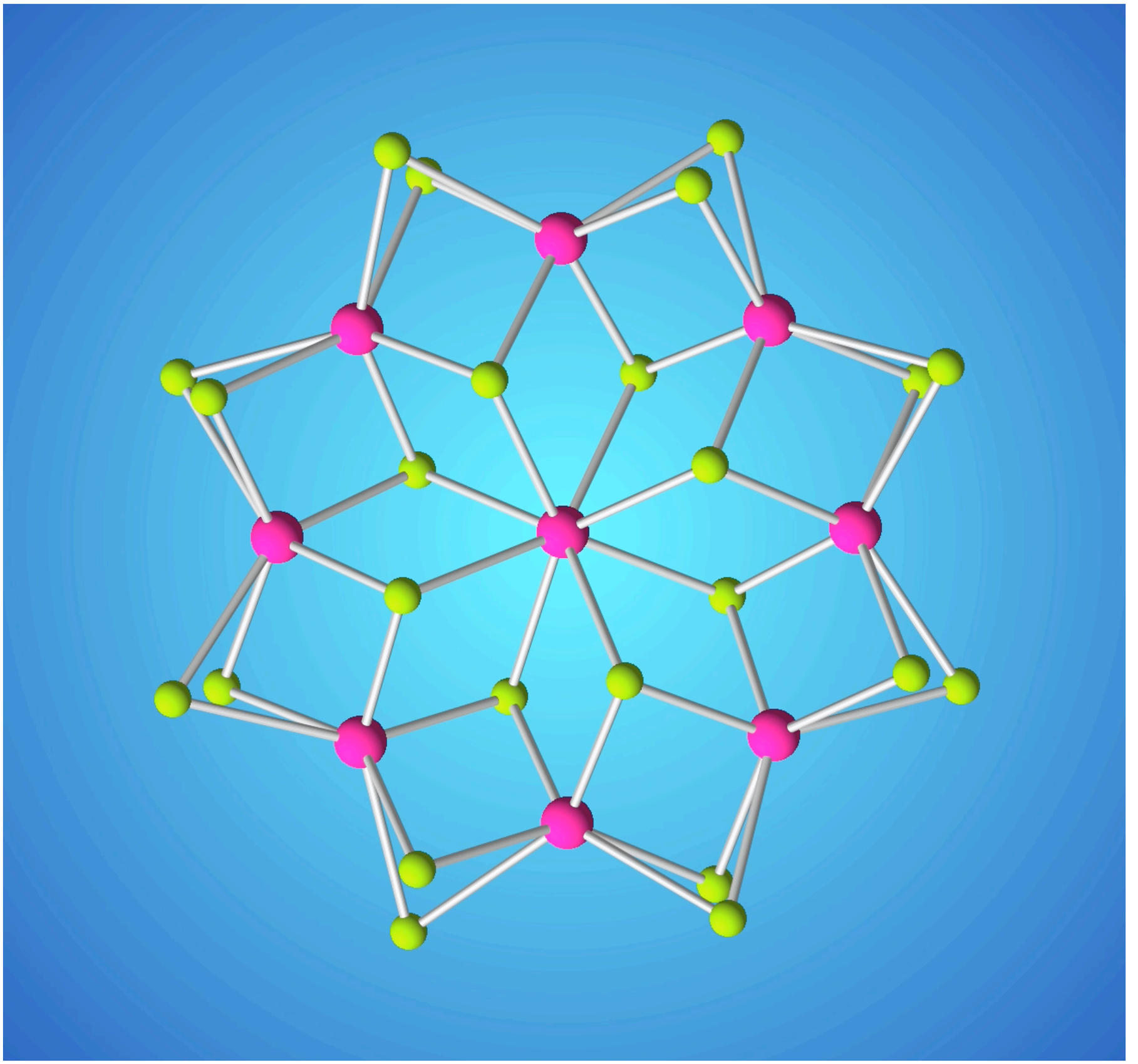
Structure Search on The VASP Instrument



Synthesis in The Johnson Laboratory

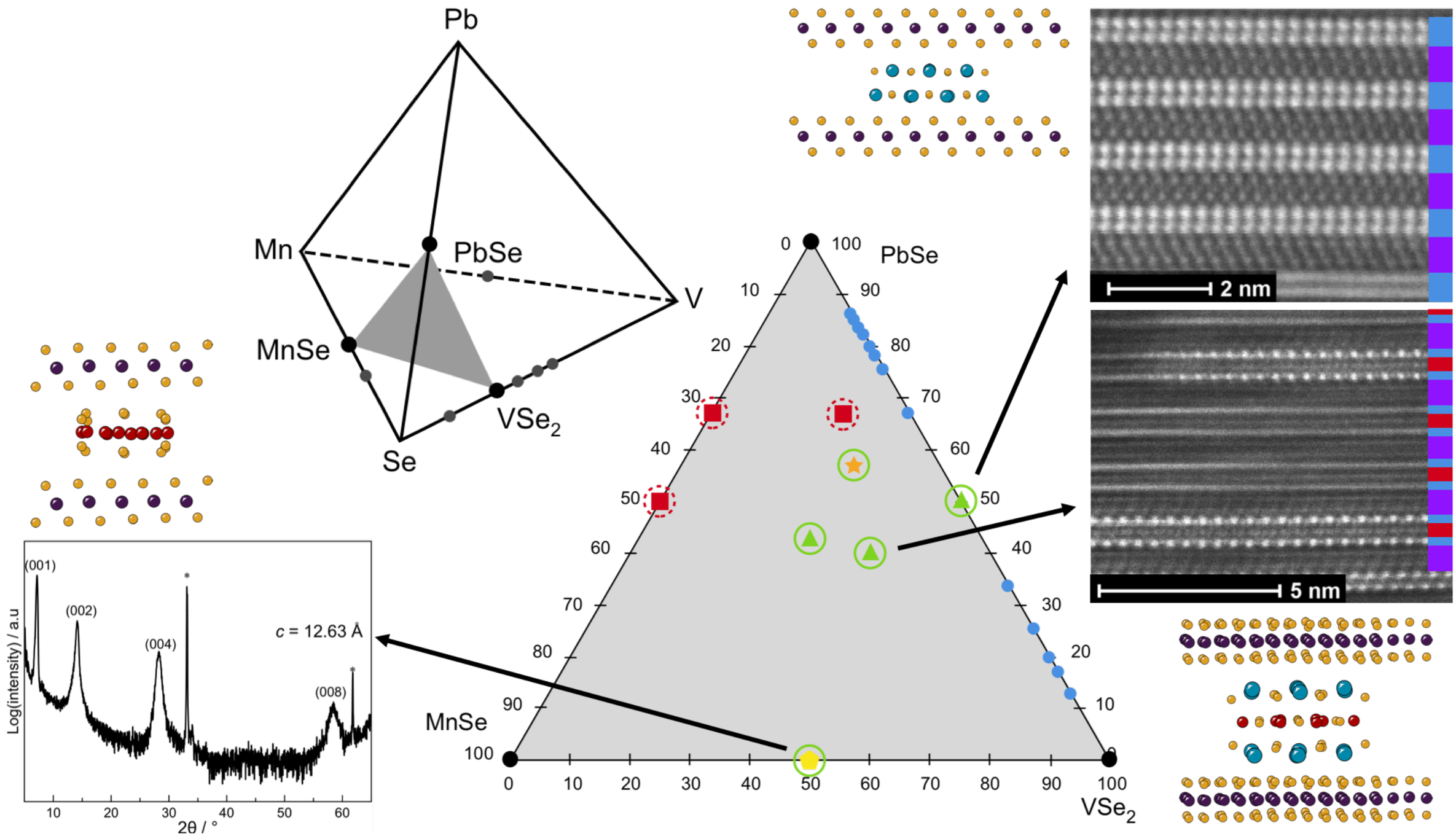
New Materials

The Modulated Elemental Reactants method enables preparation of targeted new materials with remarkable physical properties.



Structural optimization of islands representing one constituent allows the system to quickly probe a wide range of structures.

The search-&-synthesis approach discovers new materials in the Mn-Pb-Se-V phase diagram, where previously no materials were known.



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