

High-pressure studies of high-nitrogen-content pyridazine-based compounds

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Intermolecular interaction of highly energetical materials are of particular interest. Presently we have investigated a few of pyridazine-based compounds, capable of transforming between azide and tetrazole forms. The azido-tetrazole transformation is known for pyridazine derivatives, which are important compounds in biology, pharmacy and chemistry.

The compression of the pyridazine derivatives materials has been *in situ* studied in a diamond-anvil cell by single-crystal X-ray diffraction. The studies revealed phase transitions and also a hydrate formation. The obtained polymorphs has similar intermolecular interactions, however the molecular arrangement is different. In all studied compounds the azide or tetrazole form presented at ambient conditions is prevented.

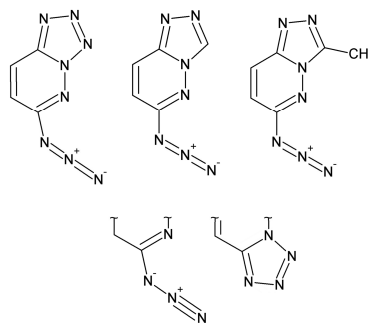


Figure 1. Studied pyridazine-based compounds and the possible tautomeric forms.

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