A high-pressure far- and mid-infrared study of 1,1-diamino-2

DOI: 10.1063/1.4722350
Journal of Applied Physics, 2012, 111, 103534.

#	Paper	IF	Citations
35	1,1-Diamino-2,2-dinitroethylene under high pressure-temperature. *Journal of Chemical Physics*, **2012**, 137, 174304	3.9	29
34	DFT study on crystalline 1,1-diamino-2,2-dintroethylene under high pressures. *Journal of Molecular Modeling*, **2013**, 19, 4039-47	2	20
33	Hydrazine at high pressure. *Chemical Physics Letters*, **2013**, 555, 115-118	2.5	29
32	High pressure infrared and X-ray Raman studies of aluminum nitride. *Physica Status Solidi (B): Basic Research*, **2013**, 250, 726-731	1.3	4
31	Polymorphs of 1,1-diamino-2,2-dinitroethene (FOX-7): Isothermal compression versus isobaric heating. *Chemical Physics Letters*, **2013**, 584, 83-87	2.5	26
30	High pressure investigations of melamine. *High Pressure Research*, **2013**, 33, 40-54	1.6	3
29	Initial decomposition mechanism for the energy release from electronically excited energetic materials: FOX-7 (1,1-diamino-2,2-dinitroethene, C2H4N4O4). *Journal of Chemical Physics*, **2014**, 140, 074708	3.9	30
28	First-principles study of electric field effects on the structure, decomposition mechanism, and stability of crystalline lead styphnate. *Journal of Molecular Modeling*, **2014**, 20, 2072	2	13
27	Structural, vibrational, and quasiparticle band structure of 1,1-diamino-2,2-dinitroethelene from ab initio calculations. *Journal of Chemical Physics*, **2014**, 140, 014105	3.9	33
26	Density functional theory calculations of pressure effects on the structure and vibrations of 1,1-diamino-2,2-dinitroethene (FOX-7). *Journal of Physical Chemistry A*, **2014**, 118, 10002-10	2.8	30
25	High-pressure vibrational and polymorphic response of 1,1-diamino-2,2-dinitroethene single crystals: Raman spectroscopy. *Journal of Physical Chemistry A*, **2014**, 118, 5002-12	2.8	29
24	Pressure-induced structure and properties of crystalline □FOX-7 by LDA and GGA calculations. *Structural Chemistry*, **2014**, 25, 1625-1633	1.8	4
23	High pressure-temperature polymorphism of 1,1-diamino-2,2-dinitroethylene. *Journal of Physics: Conference Series*, **2014**, 500, 052005	0.3	7
22	High-Pressure Experimental and DFT-D Structural Studies of the Energetic Material FOX-7. *Journal of Physical Chemistry C*, **2015**, 119, 2322-2334	3.8	55
21	Electric-field-induced structural and electronic changes and decomposition of an energetic complex: a computational study on zinc carbohydrazide perchlorate crystals. *RSC Advances*, **2015**, 5, 22601-22608	3.7	8
20	Electric-Field-Induced Structural and Electronic Changes and Decomposition of Crystalline Lead Azide: A Computational Study. *Journal of Physical Chemistry C*, **2015**, 119, 8431-8437	3.8	10
19	High-pressure stability of 1,1-diamino-2,2-dinitroethene (FOX-7): H/D isotope effect. *Chemical Physics Letters*, **2015**, 624, 59-63	2.5	7

18	High Pressure-Temperature Phase Diagram of 1,1-Diamino-2,2-dinitroethylene (FOX-7). *Journal of Physical Chemistry A*, **2015**, 119, 9739-47	2.8	24
17	The structural response to pressure of energetic crystal 1,3-Diamino-2,4,6-trinitrobenzene: Density functional theory calculations and Hirshfeld surfaces analysis. *Computational and Theoretical Chemistry*, **2016**, 1091, 57-63	2	3
16	High pressure structural, elastic and vibrational properties of green energetic oxidizer ammonium dinitramide. *Journal of Chemical Physics*, **2016**, 145, 064706	3.9	12
15	Structural, vibrational and bonding properties of hydro-nitrogen solids under high pressure: An ab-initio study. *Journal of Chemical Sciences*, **2016**, 128, 1631-1639	1.8	4
14	Equation of state and thermodynamic Grüneisen parameter of monoclinic 1,1-diamino-2,2-dinitroethylene. *Journal of Physics Condensed Matter*, **2016**, 28, 395402	1.8	2
13	High-Pressure Structural Response of an Insensitive Energetic Crystal: 1,1-Diamino-2,2-dinitroethene (FOX-7). *Journal of Physical Chemistry C*, **2016**, 120, 27600-27607	3.8	14
12	Phase Diagram and Decomposition of 1,1-Diamino-2,2-dinitroethene Single Crystals at High Pressures and Temperatures. *Journal of Physical Chemistry C*, **2016**, 120, 11092-11098	3.8	18
11	High-Pressure Preference for the Low Z? Polymorph of a Molecular Crystal. *Crystal Growth and Design*, **2016**, 16, 3947-3953	3.5	20
10	High-Pressure Crystal Structures of an Insensitive Energetic Crystal: 1,1-Diamino-2,2-dinitroethene. *Journal of Physical Chemistry C*, **2016**, 120, 1218-1224	3.8	31
9	High Pressure Effects on Zwitterionic and Thione Mesomeric Contributions in 2-Benzimidazole-2-Thione. *Journal of Physical Chemistry C*, **2017**, 121, 18830-18836	3.8	
8	A DFT-D Study on Structural, Electronic, Thermodynamic, and Mechanical Properties of HMX/MPNO Cocrystal under High Pressure. *Journal of Energetic Materials*, **2017**, 35, 157-171	1.6	7
7	Pressure-Induced High-to-Low Z? Phase Transition of a Conformationally Disordered Molecular Crystal. *Crystal Growth and Design*, **2018**, 18, 3187-3192	3.5	6
6	Review of Phase Transformations in Energetic Materials as a Function of Pressure and Temperature. *Journal of Physical Chemistry C*, **2019**, 123, 29067-29085	3.8	12
5	Uniaxial compression behavior and spectroscopic properties of energetic 1,1-diamino-2,2-dinitroethylene (FOX-7) crystals from density functional theory calculations. *Progress in Natural Science: Materials International*, **2019**, 29, 329-334	3.6	3
4	Structural Transformation and Chemical Stability of a Shock-Compressed Insensitive High Explosive Single Crystal: Time-Resolved Raman Spectroscopy. *Journal of Physical Chemistry A*, **2020**, 124, 6521-6527	2.8	5
3	Near-optimal combination of high performance and insensitivity in a shock compressed high explosive single crystal. *Journal of Applied Physics*, **2021**, 130, 015902	2.5	1
2	Pressure-induced phase transitions and mechanical properties of insensitive high explosive 1,1-diamino-2,2-dinitroethylene. *Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences*, **2022**, 77, 131-140	1	
1	A review of small angle scattering, neutron reflection, and neutron diffraction techniques for microstructural characterization of polymer-bonded explosives. **2023**,		1