









Table 1. Thermodynamic parameters of pure and 0.1wt% DL-Methionine doped ADP crystals.

Sample	Reaction	Peak Temperature (°C)	$\Delta H$ (J/kg)	$\Delta C_p$ (J/kg.K)	Amount of Heat change (Vs/kg)
Pure ADP	Endothermic	209 <sup>0</sup>	-45.56 * 10 <sup>-4</sup>	648	-160.26
ADP + 0.1wt% DLM	Endothermic	212 <sup>0</sup>	-50.75 * 10 <sup>-4</sup>	1351	-160.38

**Summary.** The pure and 0.1wt% DL-Methionine doped ADP crystals were successfully grown by slow solvent evaporation technique at room temperature. The powder XRD exhibits single phase nature of doped sample with slight variation in the unit cell parameters. The shifting of absorption peaks in FT-IR and the occurrence of absorptions responsible to C-H and C=O indicated interaction of amino acids with ADP. The Thermal study shows DL-methionine marginally reduced the thermal stability of ADP.

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