

No. M28 $\text{NH}_4\text{PF}_6 \cdot \text{NH}_4\text{F}$, Hexafluorophosphate salt $(M = 200.04; [D: 208.09])$

1a	Antiferroelectricity in $\text{NH}_4\text{PF}_6 \cdot \text{NH}_4\text{F}$ was mentioned by Vedam et al. in 1959.			59Ved	
b	phase	III ^{a)}	II ^{a)}	I ^{a)}	^{a)} 59Ved
	state	(A) ^{a)}	(A) ^{a)}	P ^{a)}	^{b)} 62Pep
	crystal system	orthorhombic ^{a)}	orthorhombic ^{a)}	tetragonal ^{a)}	
	space group			C4/nmm – D _{4h} ⁷ ^{b)}	
	θ [°C]	–101 ^{a)}		–45 ^{a)}	
3a	Unit cell parameters: $a = 7.88 \text{ \AA}$, $c = 10.90 \text{ \AA}$ at RT. X-ray diffraction reveals superstructure along the a and b axes below –45 °C and a doubling of the c axis below –101 °C.				62Pep 59Ved, 62Pep
5a	The dielectric constant κ_a shows a small anomaly at –45 °C and a pronounced anomaly at –101 °C. Fig. M28-001. Dielectric constant of deuterated salt: see				62Pep 80Zil
13a	NMR: Fig. M28-002, Fig. M28-003, Fig. M28-004; see also				80Zil