

No. 33A-12 (CH₃)₂NH₂H₂AsO₄, Dimethylammonium dihydrogen arsenate
 (*M* = 187.03)

1a	Ferroelectric activity in $(\text{CH}_3)_2\text{NH}_2\text{H}_2\text{AsO}_4$ was discovered by Hatori et al. in 1997.		97Hat	
b	phase	II	I	97Hat
	state	F	P	
	crystal system	monoclinic	monoclinic	
	space group	$\text{Pn} - \text{C}_s^2$	$\text{P2}_1/\text{n} - \text{C}_{2\text{h}}^5$	
	Θ [K]	275		
	$\rho = 1.90 \cdot 10^3 \text{ kg m}^{-3}$ at RT.			97Hat
	Transparent, colorless.			97Hat
	Cleavage plane: (110) and $(1\bar{1}0)$.			97Hat
	$P_s \parallel$ the direction inclined towards the a axis from the c axis by 17° .			97Hat
2a	Crystal growth: evaporation method from aqueous solution.			97Hat
3a	Unit cell parameters:			97Hat
	$a = 9.4040(3) \text{ \AA}$, $b = 9.789(2) \text{ \AA}$, $c = 7.1909(2) \text{ \AA}$, $\beta = 90.509(5)^\circ$ at RT.			
	$a = 9.369(1) \text{ \AA}$, $b = 9.764(2) \text{ \AA}$, $c = 7.162(1) \text{ \AA}$, $\beta = 90.56(3)^\circ$ at 165K.			
b	$Z = 4$ at RT and below Θ .			97Hat
5a	Dielectric constant: Fig. 33A-12-001, Fig. 33A-12-002.			
c	Spontaneous polarization: Fig. 33A-12-003.			