

No. M25 $\text{N}(\text{CH}_3)_4\text{HSO}_4 \cdot \text{H}_2\text{O}$, Tetramethylammonium hydrogen sulfate monohydrate
 ($M = 189.23$)

1a	Phase transitions and ferroelectric activity in $\text{N}(\text{CH}_3)_4\text{HSO}_4 \cdot \text{H}_2\text{O}$ were reported by Suzuki et al. in 1985 *).			85Suz	
b	phase	III	II	I	85Suz
	state		(F)		
	crystal system		pseudocubic		85Suz
	θ [°C]	-104		40	
	*) It was reported that anhydrous crystal $\text{N}(\text{CH}_3)_4\text{HSO}_4$ and hydrated crystal $\text{N}(\text{CH}_3)_4\text{HSO}_4 \cdot \text{H}_2\text{O}$ were obtained simultaneously from the same aqueous solutions, and the anhydrous crystal seemed to show ferroelectricity in nearly the same temperature range as that of the hydrated crystal $\text{N}(\text{CH}_3)_4\text{HSO}_4 \cdot \text{H}_2\text{O}$. For the anhydrous crystal $\text{N}(\text{CH}_3)_4\text{HSO}_4$, see No. 40A-6.				85Suz
2a	Crystal growth: evaporation of aqueous solution.				85Suz
5a	Dielectric constant: Fig. M25-001.				
c	Spontaneous polarization: Fig. M25-002.				
6a	Differential thermal analysis chart shows anomalies at -104, -50, 40 and 123 °C.				85Suz