

PROPERTIES OF ANTIFERROELECTRIC CRYSTALS

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Some important antiferroelectric crystals are listed here with their Curie Temperatures T_c . The last column gives the constant T_0 which appears in the Curie-Weiss law describing the dielectric constant of these materials above the Curie Temperature:

$$\epsilon = \text{const.}/(T - T_0)$$

Name or acronym	Formula	T_c /K	T_0 /K
ADP	$\text{NH}_4\text{H}_2\text{PO}_4$	148	
ADA	$\text{NH}_4\text{H}_2\text{AsO}_4$	216	
ADDP	$\text{NH}_4\text{D}_2\text{PO}_4$	242, 245	
ADDA	$\text{NH}_4\text{D}_2\text{AsO}_4$	299	
A_dDDP	$\text{ND}_4\text{D}_2\text{PO}_4$	243	
A_dDDA	$\text{ND}_4\text{D}_2\text{AsO}_4$	304	
Sodium niobate	NaNbO_3	911, 793	
Lead hafnate	PbHfO_3	476	378
Lead zirconate	PbZrO_3	503	475
Lead metaniobate	PbNb_2O_6	843	530
Lead metatantalate	PbTa_2O_6	543	533
Tungsten trioxide	WO_3	1010	
Potassium strontium niobate	$\text{KSr}_2\text{Nb}_5\text{O}_{15}$	427	413
Sodium nitrite	NaNO_2	437	437
Sodium trihydrogen selenite	$\text{NaH}_3(\text{SeO}_3)_2$	193	192
Sodium trideuterium selenite	$\text{NaD}_3(\text{SeO}_3)_2$	271	245
Ammonium trihydrogen periodate	$(\text{NH}_4)_2\text{H}_3\text{IO}_6$	245	