

Organic and Inorganic Values

Inorganic radical	Inorganic value
Light metal	500<
Heavy metal , amine and NH ₄ salt	400<
-AsO ₃ H ₂ , >AsO ₂ H	300
-SO ₂ -NH-CO-, -N=N-NH ₂	260
=>N ⁺ -OH , -SO ₃ H , -NHSO ₂ -NH	250
-CO-NHCO-NHCO-	250
≡S-OH , -CONH-CONH- , SO ₂ NH-	240
-CS-NH-, -CONH-CO-	230
=N-OH , -NHCONH-	220
=N-NH-, -CONH-NH ₂	210
-CONH-	200
≡N→O	170
-COOH	150
Lactone cyclization	120
-CO-O-CO-	110
Anthracene nucleus, Phenanthrene nucleus	105
-OH	100
>Hg (covalent bond)	95
-NH-NH , -O-CO-O-	80
-N< , (-NH ₂ , -NHΦ, -NHΦ ₂) amine	70
>CO	65
-COOΦ , Naphthalene nucleus, Quinoline nucleus	60
>C=NH	50
-O-O-	40
-N=N-	30
-O-	20
Benzene nucleus (general aromatic monocycle), Pyridine nucleus	15
Ring (general non-aromatic monocycle)	10
Triple bond	3
Double bond	2
-(OCH ₂ CH ₂)- , under normal temperature	75
(Temp. > Cloud point)	(20)

Organic and Inorganic values	Organic value	Inorganic value	
R ₄ Bi-OH	80	250	
R ₄ Sb-OH	60	250	
R ₄ As-OH	40	250	
R ₄ P-OH	20	250	
-O-SO ₃ H	20	220	
>SO ₂	40	170	
>SO	40	140	
-CSSH	100	80	
-SCN	90	80	
-CSOH , -COSH	80	80	
-NCS	90	75	
-Bi<	80	70	
-NO ₂	70	70	
-Sb<	60	70	
-As< , -CN	40	70	
-P<	20	70	
-CSSΦ	130	50	
-CSOΦ , -COSΦ	80	50	
-NO	50	50	
-O-NO ₂	60	40	
-NC	40	40	
-Sb=Sb-	90	30	
-As=As-	60	30	
-P=P-, -NCO-	30	30	
-O-NO , -SH , -S-	40	20	
-I	80	10	
-Br	60	10	
=S	50	10	
-Cl	40	10	
-F	5	5	
Iso branch	>-	-10	0
Tert branch	→-	-20	0

※ R=alkyl, Φ=alkyl or phenyl

*Organic value (OV) = 「C_n×20」 + 「Organic value of Organic and Inorganic values」 + 「branch」

*Inorganic value (IV) = 「Inorganic value of Inorganic radical」 + 「Inorganic value of Organic and Inorganic values」