

化学反应式手册

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化学反应式手册

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1984年·沈阳

编 者 的 话

为了方便广大化学教师、科技人员和高等院校有关专业的学生查阅常见物质的化学反应式，进而了解它们的性质，我们编写了这本手册。

本手册着重收集了常见无机物和有机物的反应，也选编了部分有机人名反应。其中注意选入了一些稀有元素和稀有气体的反应、有机合成试剂的反应、光化学反应和协同反应。全书约收入化学反应式一万余条。

本手册无机部分由潘国光同志执笔；有机部分由赵正大、刘传悦同志执笔；有机人名反应由武振卿同志执笔。最后由刘传悦同志统一整理。在编写过程中，承蒙洪盈教授、沈建民副教授、杨成祥副教授和顾新贤同志审阅了部分或全部书稿，提出宝贵意见，谨此表示谢意。

由于水平有限，经验不足，错误和不妥之处，诚望读者批评指正。

一九八二年五月一日于沈阳

编 排 说 明

一、无机部分的反应式，以第一个反应物分子式中第一个元素符号的字母为序。第一个元素符号相同者，按该元素的原子个数多少排列。依此类推。

二、有机部分的反应式，以第一个反应物分子式中C、H元素的原子个数为序。从第三个元素开始，与无机部分排法相同。

三、有机人名反应按反应名称的英文字母顺序排列。

四、反应式中仅注明重要反应条件。部分反应式列出了收率。

书中出现的缩写和符号

Me——甲基	酰胺
Et——乙基	DMSO——二甲基亚砷
Pr——丙基	DCC——二环己基碳
Bu——丁基	二亚胺
n——正	Pyr——吡啶
i——异	NBS——N-溴代琥珀
t——叔(特)	酰亚胺
Ph——苯基	Raney Ni——雷尼镍(活性
Ac——乙酰基(有机反	镍)
	atm——大气压
Ts——对甲苯磺酰基	p·s·i——磅/英寸 ²
THF——四氢呋喃	g——气态
DMF——N,N-二甲基甲	l——液态
酰胺	s——固态
DMA——N,N-二甲基乙	aq——含水的、水溶

液
o——邻
m——间
p——对

$h\nu$ ——光
u.v.——紫外光
i.r——红外光

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无机化学反应

Ac	1	Ce	40
Ag	2	Cf	45
Al	6	Cl	45
Am	9	Cm	47
As	10	Co	48
Au	13	Cr	52
B	16	Cs	58
Ba	19	Cu	59
Be	24	Dy	65
Bi	27	Er	67
Bk	30	Eu	69
Br	31	F	71
C	32	Fe	72
Ca	33	Ga	78
Cd	38	Gd	80

Ge	82	Ni.....	146
H.....	85	Np	148
Hf	91	O	150
Hg	93	Os.....	151
Ho	97	P	151
I	99	Pa	154
In.....	101	Pb	155
Ir	103	Pd	157
K.....	104	Pm	158
Kr.....	111	Po	158
La.....	112	Pr.....	159
Li.....	115	Pt.....	160
Lu	117	Pu	161
Mg	119	Ra	163
Mn	122	Rb	163
Mo	127	Re	165
N.....	128	Rh	166
Na	134	Rn	167
Nb	140	Ru	167
Nd	143	S	168

Sb	171	Ti.....	188
Sc.....	173	Tl.....	191
Se.....	175	Tm	192
Si.....	175	U	194
Sm	177	V	197
Sn	179	W.....	199
Sr.....	181	Xe	200
Ta	182	Y	202
Tb	184	Yb	203
Tc	185	Zn	205
Te	185	Zr.....	207
Th	186		

有机化学反应

C ₁	210	C ₇	688
C ₂	242	C ₈	785
C ₃	324	C ₉	849
C ₄	384	C ₁₀	877
C ₅	473	C ₁₁	932
C ₆	499	C ₁₂	935

C ₁₃	950	C ₁₈	998
C ₁₄	961	C ₁₉	1004
C ₁₅	990	C ₂₀	1007
C ₁₆	993	B ₂	1008
C ₁₇	997	Si	1011

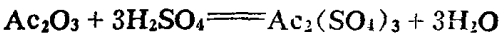
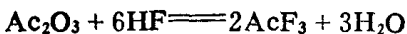
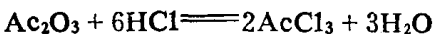
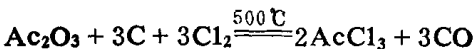
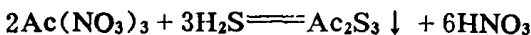
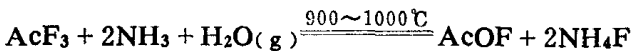
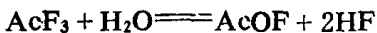
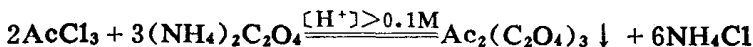
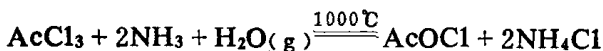
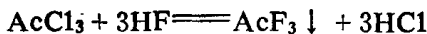
有机人名反应

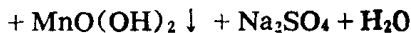
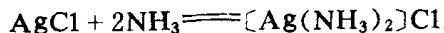
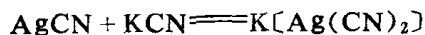
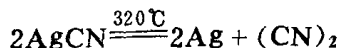
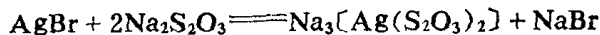
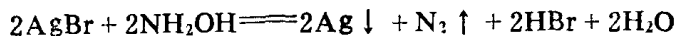
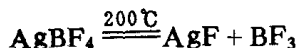
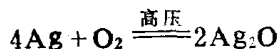
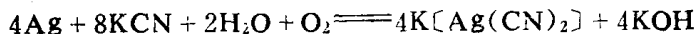
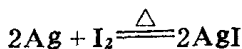
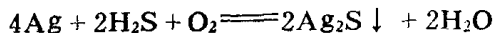
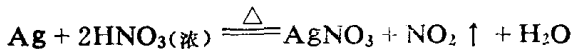
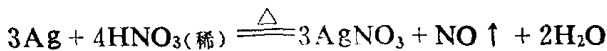
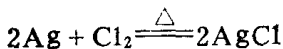
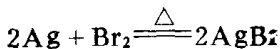
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C	1069	O	1202
D	1084	P	1204
E	1096	Q	1229
F	1107	R	1230
G	1119	S	1246
H	1134	T	1273
I	1156	U	1281
J	1157	V	1285
K	1160	W	1289
L	1171	Z	1314

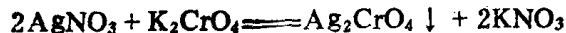
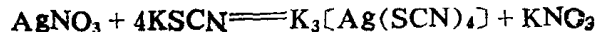
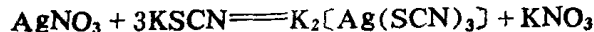
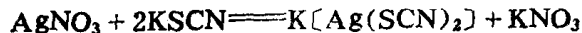
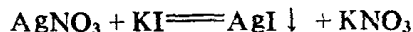
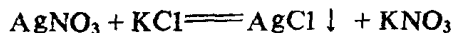
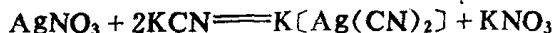
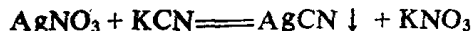
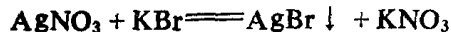
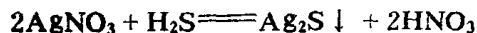
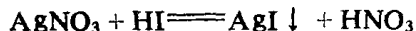
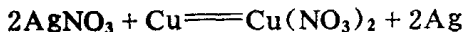
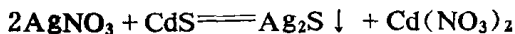
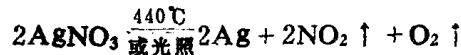
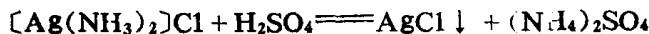
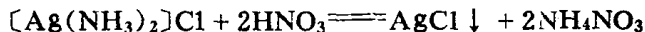
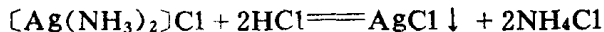
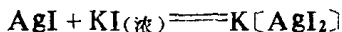
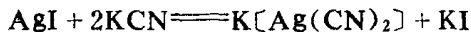
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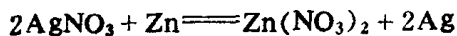
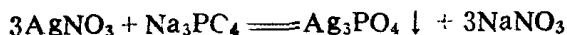
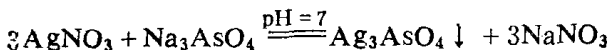
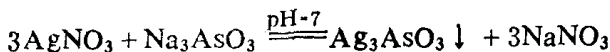
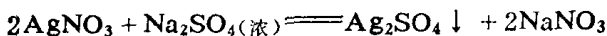
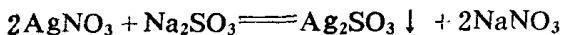
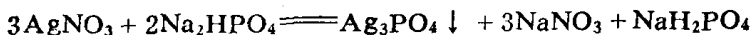
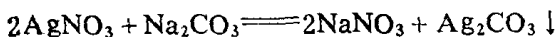
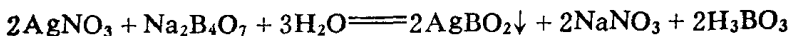
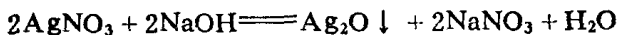
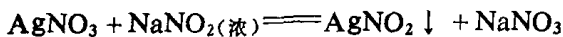
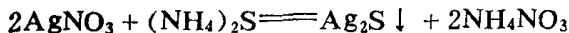
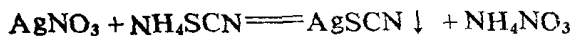
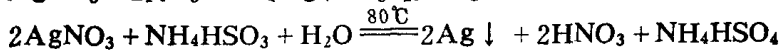
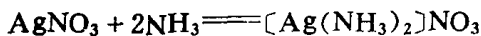
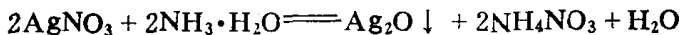
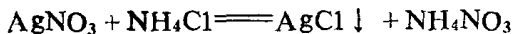
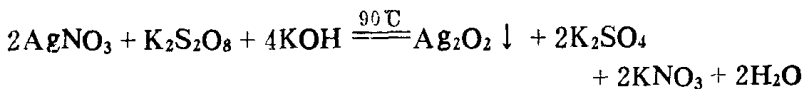
无机化学反应

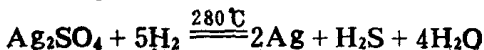
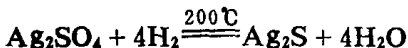
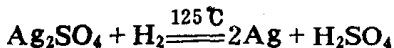
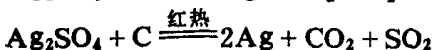
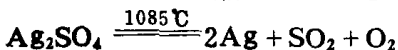
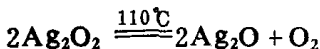
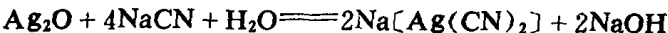
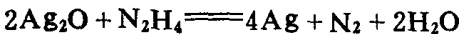
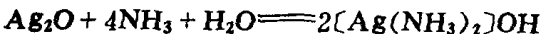
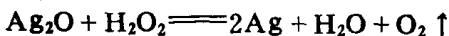
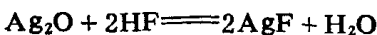
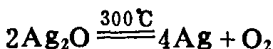
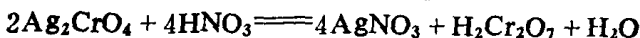
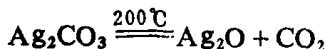
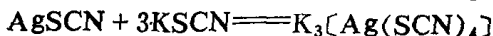
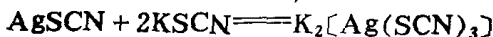
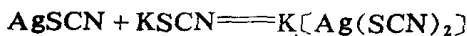
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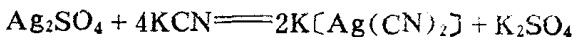
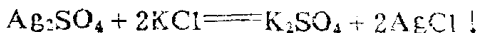


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