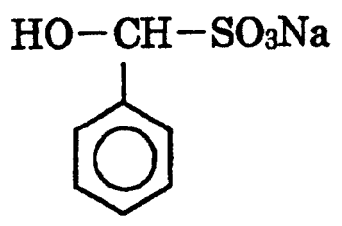
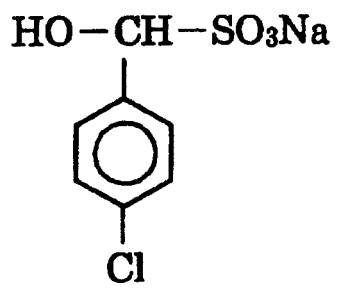


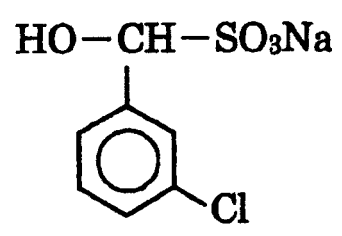
3



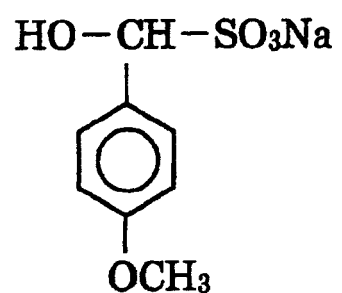
4

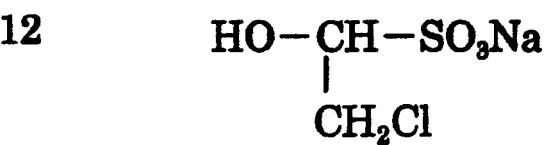
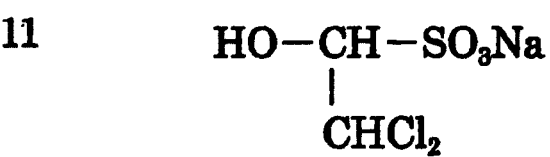
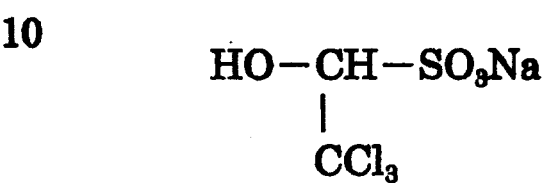
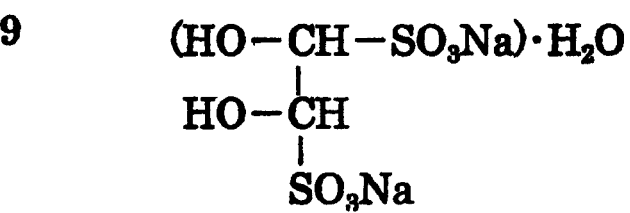
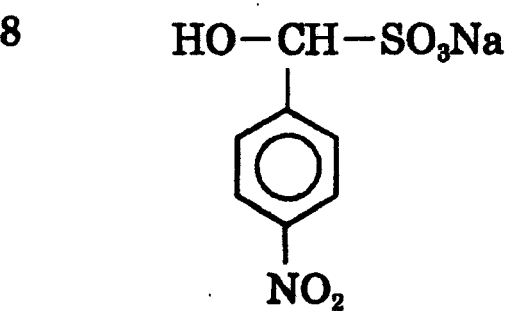
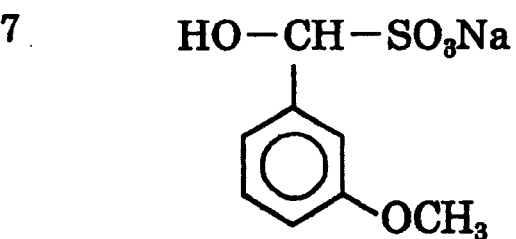


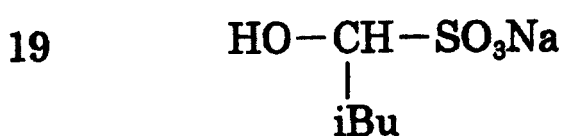
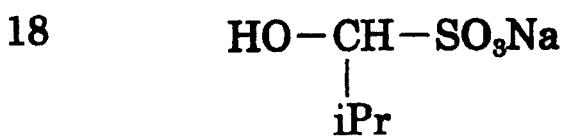
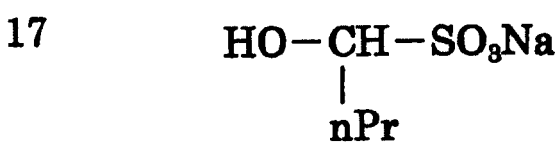
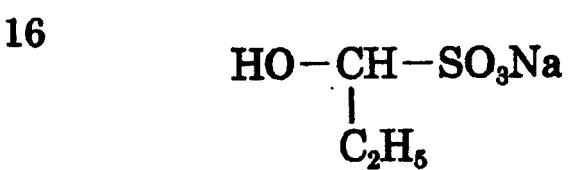
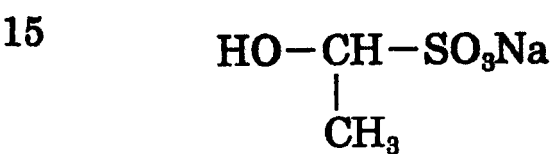
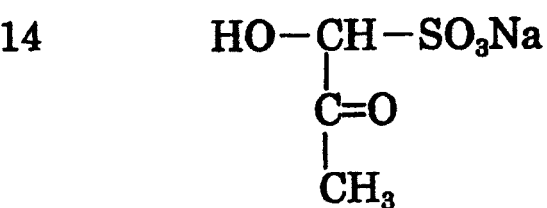
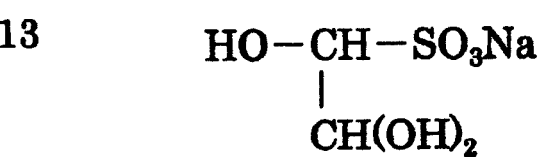
5



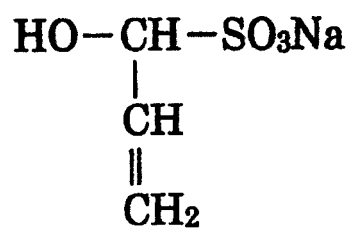
6



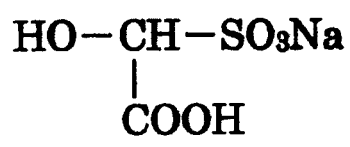




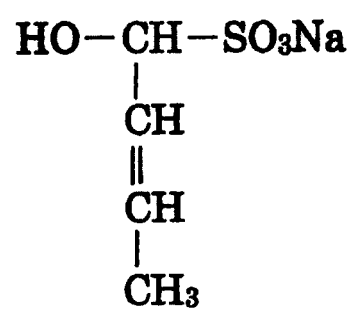
20



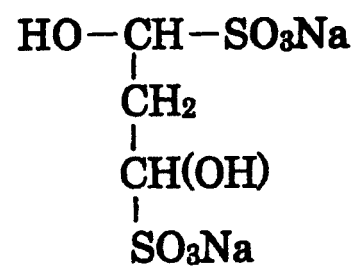
21



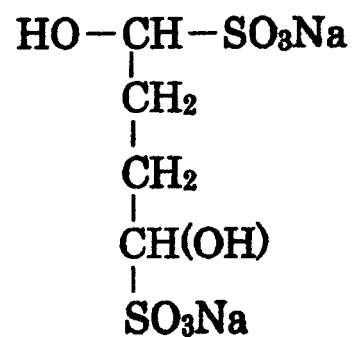
22



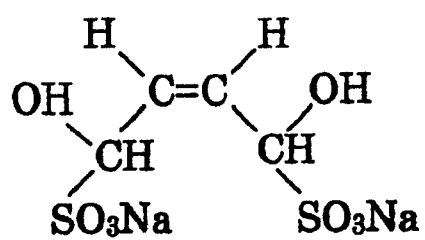
23



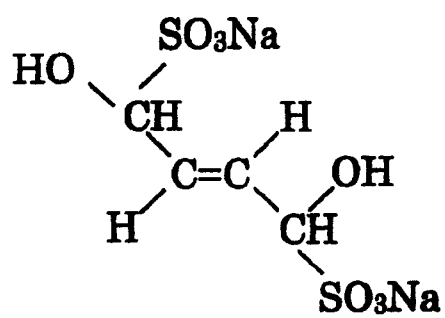
24



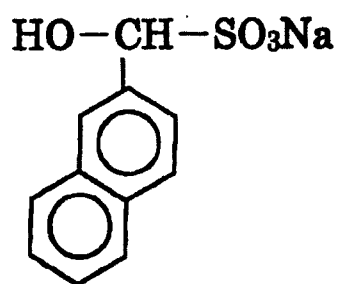
25



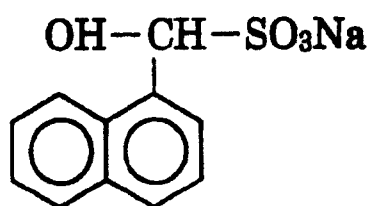
26



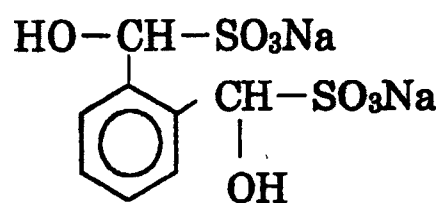
27



28

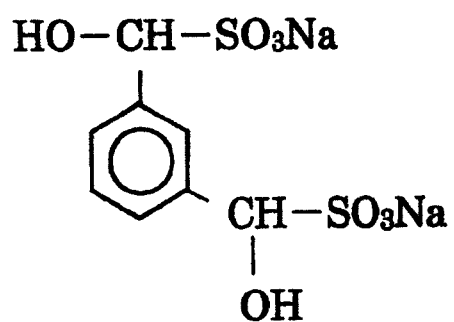


29

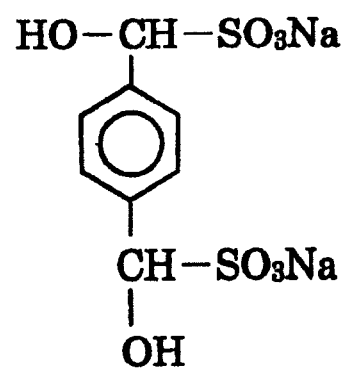




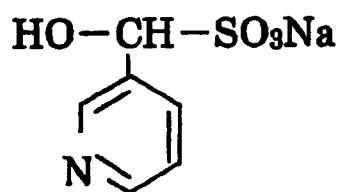
30



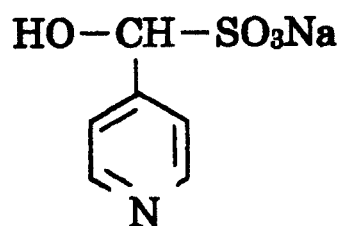
31



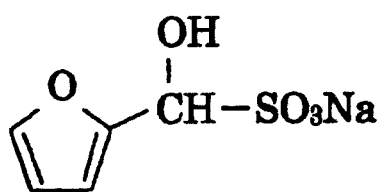
32

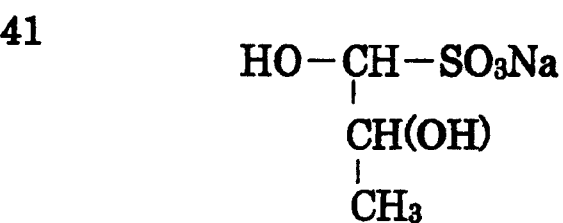
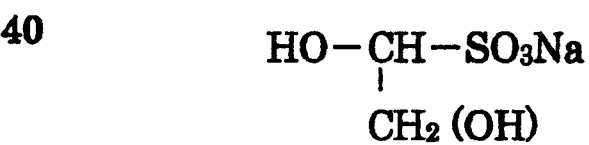
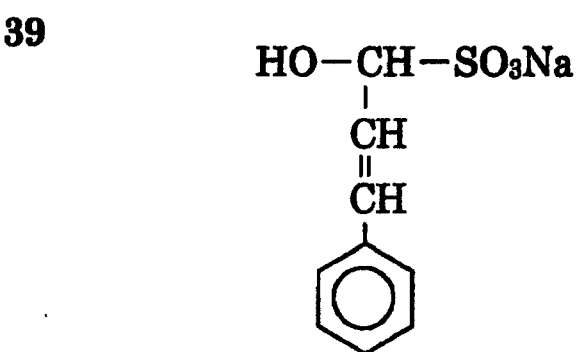
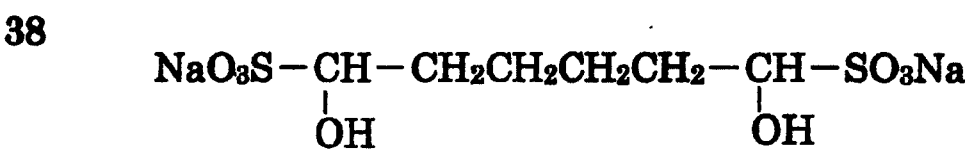
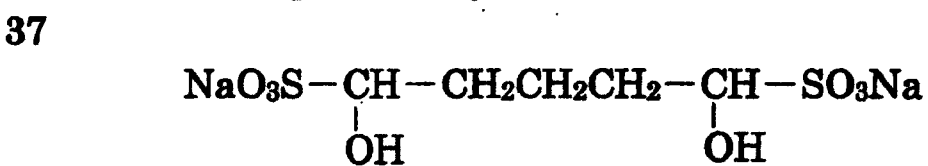
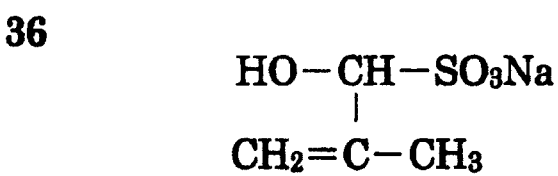
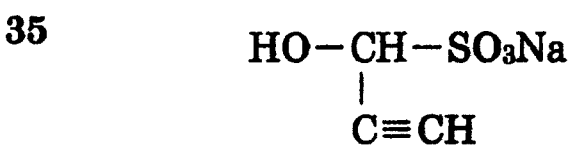


33

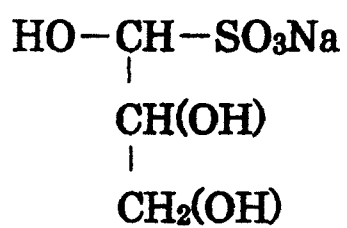


34

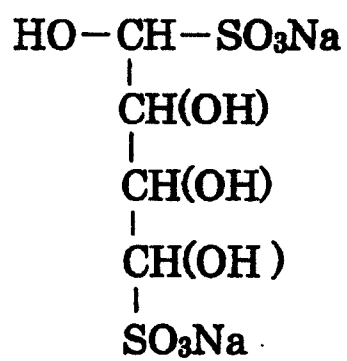




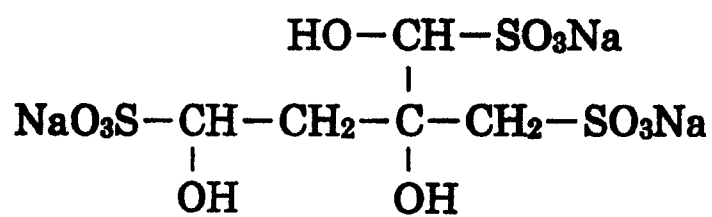
42



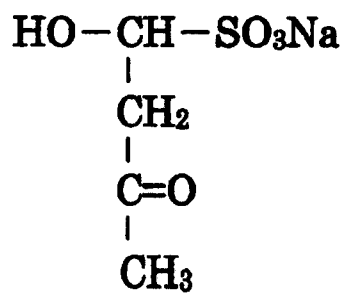
43



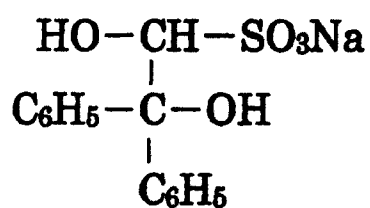
44



45



46



测试顺序	试验片: Cu 箔		
● 工艺	● 药剂	● 条件	● 处理时间
①酸性脱脂	PB - 242D	40 ~ 50℃	5 分钟
热水洗		50℃	1 分钟
水洗			
②软蚀刻	过硫酸钠 100g/l	25℃	45 秒
	硫酸 20 ml/l		
水洗			
酸浸渍	硫酸 30 ml/l		2 分钟
水洗			
HCl 浸渍	35% HCl 100 ml/l	25℃	30 秒
③活化剂	KG - 522	25℃	2 分钟
水洗			
酸浸渍	硫酸 30 ml/l	25℃	10 秒
水洗			
④非电解镀 Ni - P	KG - 530	90℃	20 分钟
		pH 4.5	
水洗			
⑤非电解置换镀金	CF - 500S	80℃	20 分钟
		pH 7.0	
水洗			
干燥			
测定初始重量			
⑥非电解还原镀金	试验	75 ~ 80℃	60 分钟
		pH 7.0	
干燥			
测定最终重量			

[表 2]

试验 组成	比较例 1		比较例 2		实施例 1	
	分子量	g/l	mol/l	g/l	mol/l	g/l
亚硫酸金钠	426.06	以 Au 计是 4	0.02	以 Au 计是 4	0.02	以 Au 计是 4
EDTA-2Na	372.24	80	0.215	80	0.215	80
酒石酸钠钾	282.22	26	0.092	26	0.092	26
1,2-乙二胺	60.1	2.5	0.042	2.5	0.042	2.5
甘氨酸	75.1	0	0.000	0	0.000	0
HMSNa	138.12	0	0.000	0	0.000	1.4
亚硫酸钠	126.04	45	0.357	45	0.357	45
硫代硫酸钠	158.11	5.5	0.035	5.5	0.035	5.5
氢醌	110.11	8	0.073	0	0.000	0
pH 值		7		7		7
浴温		70		80		80
镀敷速度	$\mu\text{m}/\text{H}$	0.960		0.450		0.630
外观	颜色 不均匀 光泽 液体的颜色 浴液的分解	金黄色 无 有 透明 有	金黄色 无 有 透明 无	金黄色 无 有 透明 无	金黄色 无 有 透明 无	金黄色 无 有 透明 无

[表 3]

试验 组成	实施例 2		实施例 3	
	分子量	g/l	mol/l	g/l
亚硫酸金钠	426.06	以 Au 计是 4	0.02	以 Au 计是 4
EDTA-2Na	372.24	80	0.215	80
酒石酸钠钾	282.22	26	0.092	26
1,2-乙二胺	60.1	2.5	0.042	0
甘氨酸	75.1	0	0.000	7.5
HMSNa	138.12	1.4	0.010	1.4
亚硫酸钠	126.04	45	0.357	45
硫代硫酸钠	158.11	5.5	0.035	5.5
氰脲	110.11	0	0.000	0
pH 值		7		7
浴温		85		80
镀数速度	$\mu\text{m}/\text{H}$	0.820		0.640
外观		金黄色 无有透明 无		金黄色 无有透明 无
液体的颜色				
浴液的分解				

