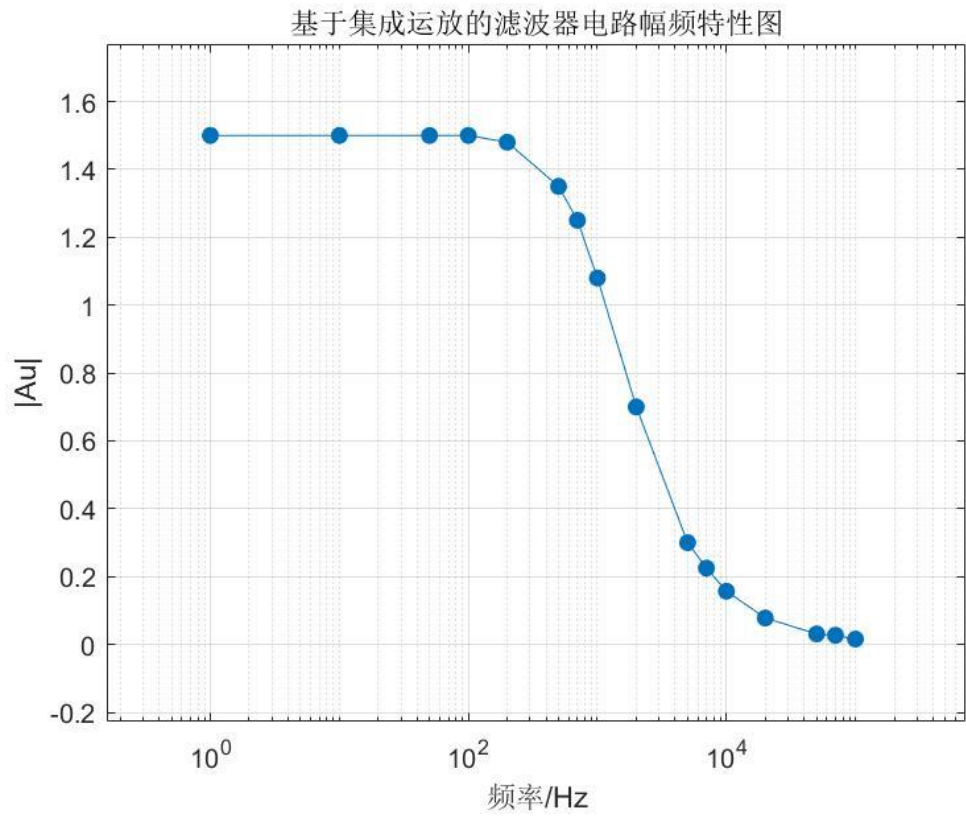


附图 4.5 基于集成运放的滤波器电路幅频特性图

(a) Excel 数据

序号	频率/Hz	Uopp/V	Uipp/V	Au
1	1	1.5	1	1.5
2	10	1.5	1	1.5
3	50	1.50	1	1.5
4	100	1.5	1	1.5
5	200	1.48	1	1.48
6	500	1.35	1	1.35
7	700	1.25	1	1.25
8	1000	1.08	1	1.08
9	2000	0.7	1	0.7
10	5000	0.3	1	0.3
11	7000	0.225	1	0.225
12	10000	0.157	1	0.157
13	20000	0.078	1	0.078
14	50000	0.031	1	0.031
14	70000	0.027	1	0.027
14	100000	0.016	1	0.016

(b) Matlab 绘制特性曲线(对数坐标)



Matlab 代码如下:

```
x=[1,10,50,100,200,500,700,1000,2000,5000,7000,10000,20000,50000,70000,100000];
y=[1.50000000000000,1.50000000000000,1.50000000000000,1.50000000000000,1.48000000000000,1.35000000000000,1.25000000000000,1.08000000000000,0.70000000000000,0.30000000000000,0.22500000000000,0.15700000000000,0.07800000000000,0.03100000000000,0.02700000000000,0.01600000000000];
semilogx(x,y,'-o','MarkerFaceColor',[0 0.447 0.741]);
xlabel('频率/Hz');
ylabel('|Au|');
title('基于集成运放的滤波器电路幅频特性图');
```