

- [54] **A-21978 ANTIBIOTICS AND PROCESS FOR THEIR PRODUCTION**
- [75] Inventors: **Robert L. Hamill**, Greenwood;  
**Marvin M. Hoehn**, Indianapolis, both of Ind.
- [73] Assignee: **Eli Lilly and Company**, Indianapolis, Ind.
- [21] Appl. No.: **206,749**
- [22] Filed: **Nov. 14, 1980**

**Related U.S. Application Data**

- [60] Continuation-in-part of Ser. No. 41,274, May 21, 1979, abandoned, which is a division of Ser. No. 951,695, Oct. 16, 1978, Pat. No. 4,208,403.
- [51] Int. Cl.<sup>3</sup> ..... **C07C 103/52**
- [52] U.S. Cl. .... **260/112.5 R; 424/115**
- [58] Field of Search ..... **260/112.5 R**

[56] **References Cited  
PUBLICATIONS**

Shoji et al., *J. Antibiotics*, 1976, vol. 29, pp. 380-389, 1268-1274, 1275-1280.

*Primary Examiner*—Dale R. Ore  
*Attorney, Agent, or Firm*—Nancy J. Harrison; Arthur R. Whale

[57] **ABSTRACT**

Antibiotic A-21978 complexes, in particular the A-21978C complex, comprising microbiologically active, related factors, C<sub>0</sub>, C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>, C<sub>4</sub>, and C<sub>5</sub>. A-21978 complex and A-21978C complex are produced by submerged aerobic fermentation of *Streptomyces roseosporus* NRRL 11379. The individual A-21978C factors are separated and isolated by chromatography. The A-21978 and A-21978C complexes, the A-21978C factors, and pharmaceutically acceptable salts thereof are antibacterial agents and improve growth promotion in poultry.

**18 Claims, 7 Drawing Figures**

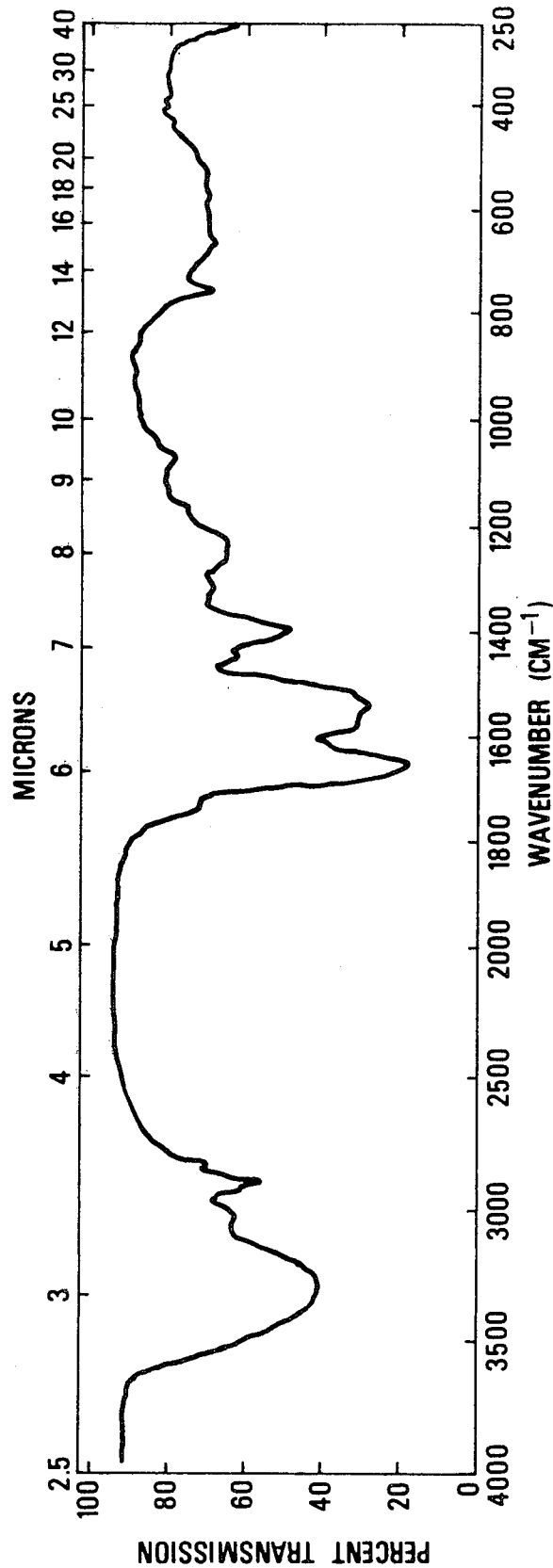


FIG. 1

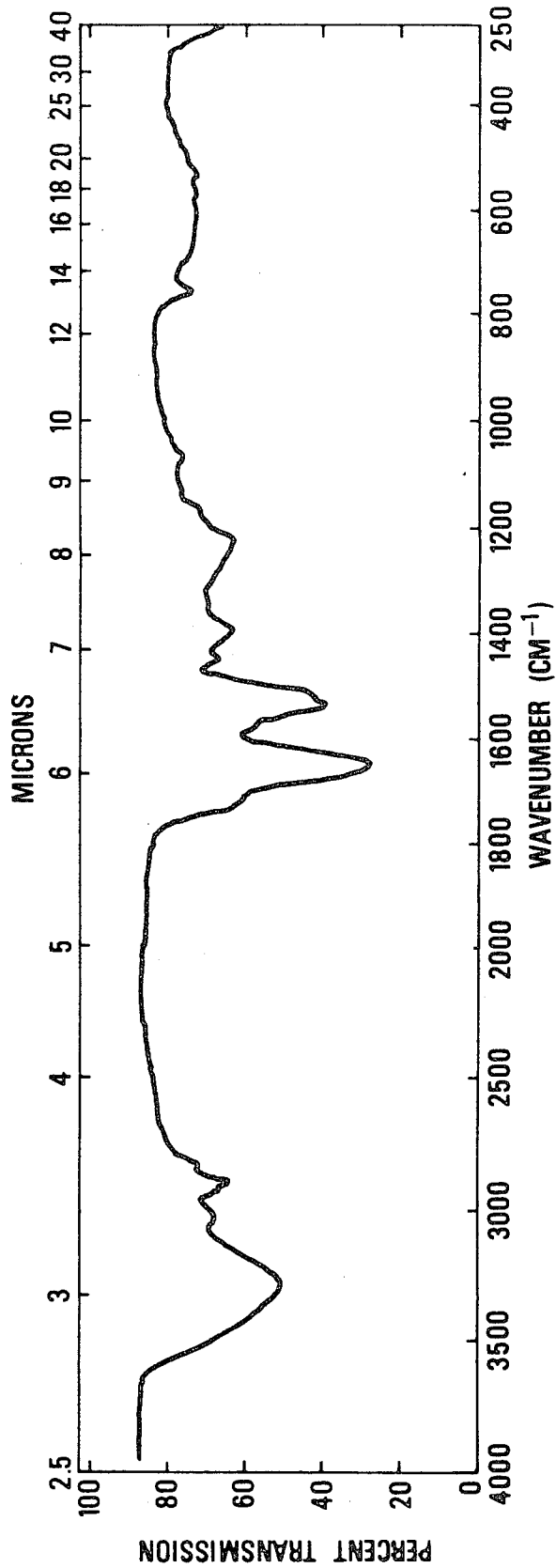


FIG. 2

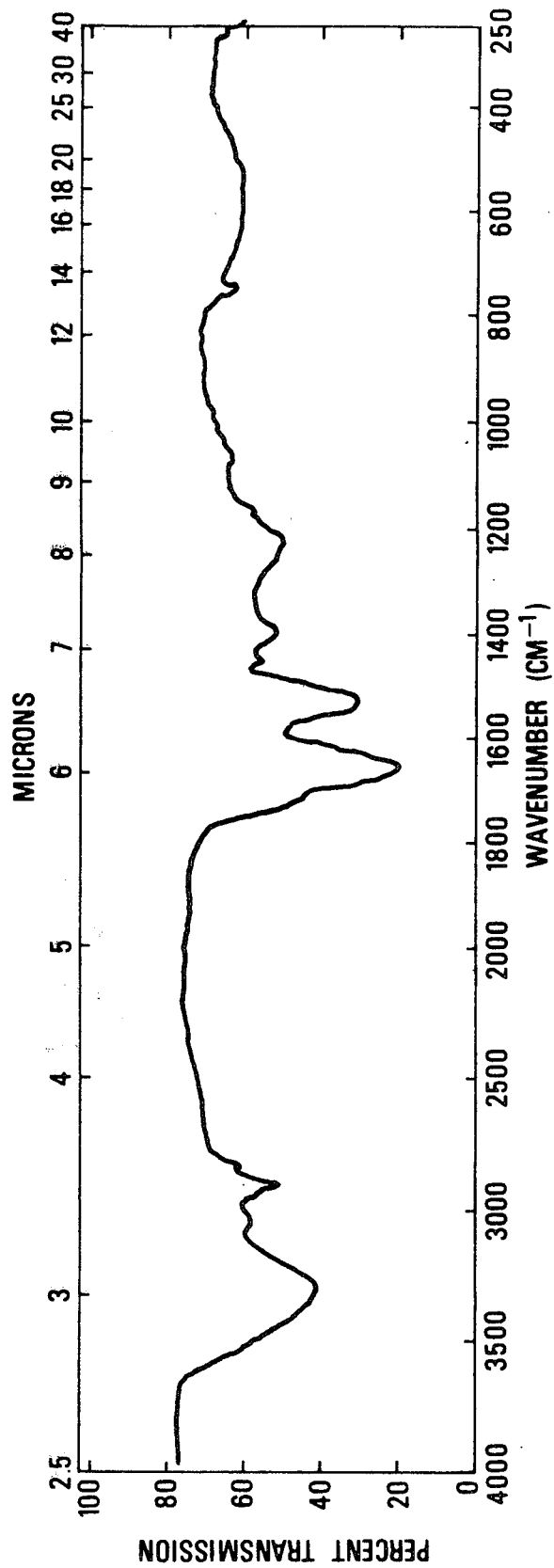


FIG. 3

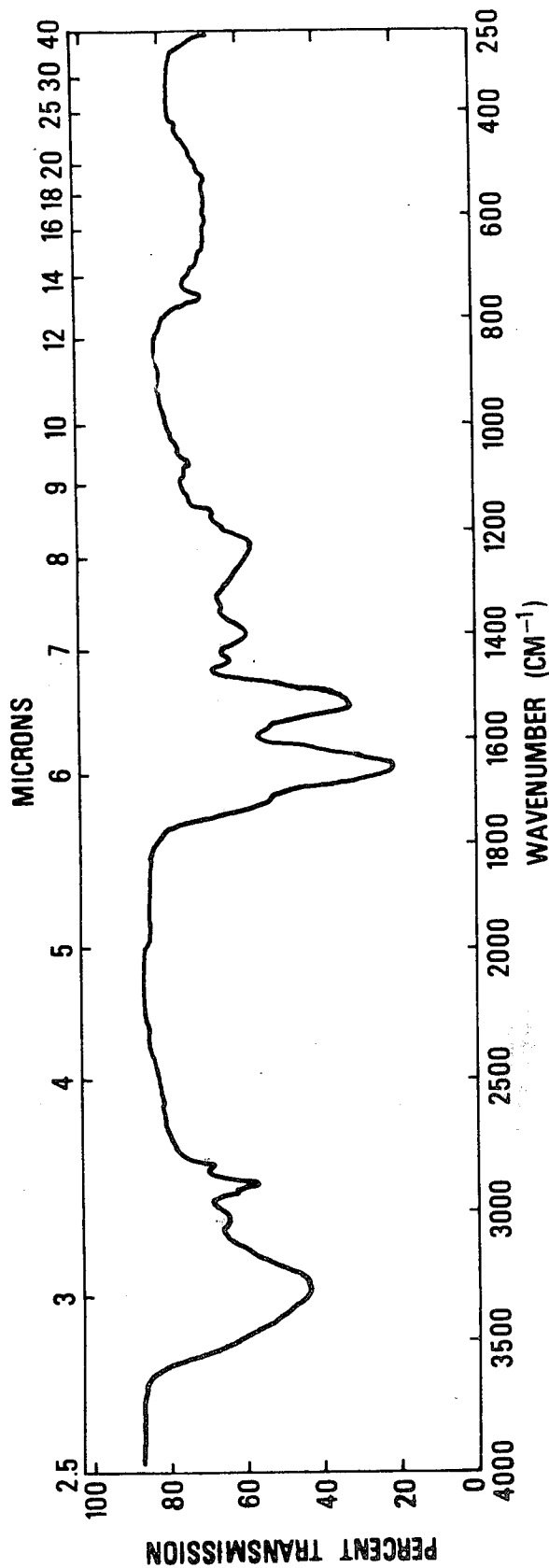


FIG. 4

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